



The English Regions

East Anglia

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INTRODUCTION

THIS PAMPHLET is one of a series describing the English regions. For this purpose the boundaries of the regions have been taken as conterminous with those of the economic planning regions, which assumed their present boundaries in 1974 following the county boundary changes that were made during the reorganisation of local government in England and Wales.

The East Anglia economic planning region comprises the counties of Cambridgeshire, Norfolk and Suffolk. It occupies just under one-tenth of the total land area of England but its population of nearly 1.8 million comprises only 3.8 per cent of the population. It is both the least populous and the least densely populated of the English regions.

There are no large urban or industrial centres and East Anglia still retains an unspoiled and predominantly rural landscape with a rich heritage of historic architecture in its towns and villages. This state of affairs is due to the fact that the region was prosperous from early medieval times until the eighteenth century when its lack of coal deposits led to its exclusion from the process of industrialisation and urbanisation that was beginning to transform Britain. The region's earlier wealth was based on arable farming and, in the fifteenth and sixteenth centuries, on the production of woollen cloths, for which it was famed throughout Europe. Many fine ecclesiastical buildings testify to the region's prosperity during this period; the Suffolk 'wool' churches, endowed by successful merchants, are characteristic examples. In the seventeenth and eighteenth centuries the region began to lose its pre-eminence in cloth manufacture, but remained to the fore in agriculture. This was a period in which some fine country houses were built. In the nineteenth and early twentieth centuries the economic fortunes of the region declined in comparison with those of other parts of the country where industries were becoming more mechanised. The decline was particularly severe when the region's main industry, agriculture, experienced a prolonged recession.

By the beginning of the present century, therefore, East Anglia had been transformed from an important and flourishing region into one isolated from the main developments within the country. Although possessing numerous environmental attractions, unspoiled by the crowded urban developments and factories that marred the landscape in other regions, it was economically stagnant and the rural population was falling.

Since the second world war, however, the region has begun to emerge from its isolation and in the 1960s, in the words of the report *Strategic Choice for East Anglia* (see pp 29–30), 'both people and jobs moved into the region in greater numbers than they had done before. . . . The region increased its share of national population and became the most rapidly growing part of the country.' Placing these changes in a larger context, the report says that 'East Anglia is clearly in the later stages of evolving from an agricultural to an urban society with an economy linked closely to national and international circumstances.'

GEOLOGY AND SCENERY

THE EAST ANGLIA economic planning region, comprising the counties of Cambridgeshire, Norfolk and Suffolk, covers some 4,850 square miles (12,564 sq km) and is compact in shape, extending for roughly 90 miles (145 km) from east to west and for 75 miles (120 km) from north to south. Jutting out from the central and southern part of the country into the North Sea, it has 150 miles (240 km) of coast and estuary (see map, centre pages).

The surface relief reflects the nature and disposition of the underlying rocks. The region possesses almost no high ground at all, but is flat only in the fenland area of northern Cambridgeshire and north-west Norfolk. Here a major break in the great chalk belt that runs down the whole of eastern and southern Britain from the Yorkshire wolds to Salisbury Plain has revealed the older Jurassic rock (mainly Oxford, Ampthill and Kimmeridge clays), producing a low, level plain. The chalk upon which the remainder of the region lies gives rise to gently undulating countryside, but is close to the surface only on its western edge, where it forms higher ground running from the West Norfolk Heights to the East Anglian Heights in the south. The ridge so formed (interrupted by the Breckland area—see p 3) has escarpments facing west and north-west, and only rises above 400 feet (122 m) in the downlands around Newmarket. From the ridge the chalk dips gently towards the east and is 500 feet (152 m) below surface level at Yarmouth. A further relief feature is the glacially formed Cromer Ridge in north Norfolk, which consists of gravelly deposits rising to over 300 feet (91 m) in places.

The landscape of the region is largely rural in aspect which is due, in part, to the fact that later geological deposits on the Jurassic and chalk rocks have afforded some of the richest soils in Britain. These, formed mainly on glacial boulder clays, except in the fenland district where they are formed on alluvial silt and peat, have supported the development of a belt of intensive cereal farming, which runs in a horseshoe shape from mid-Norfolk southwards to the Ipswich area, westwards to Cambridge, and then northwards through Huntingdon to Peterborough. About 84 per cent of all land in the region is used for agricultural purposes, with arable farming accounting for 69 per cent. That East Anglia has remained largely rural, without experiencing the growth of urban and industrial areas that occurred—mainly during the nineteenth century—in other parts of the country, is due also to the fact that the region possesses no coal or other fuel deposits.

The general characteristics of the geology and scenery of the region—its low rolling relief and rural aspect—produce its distinctive unity. Variety within the region, in terms of both geology and scenery, is provided in several areas. The extremely flat area of the fenland has already been mentioned. Here, former marshlands, reclaimed by intensive drainage, are composed of silt on the seawards side and peat inland. The numerous drainage channels, embankments and other devices to control water levels (including windmills) are reminiscent of the Netherlands. Some of the historic towns in this area, such as Ely and March, are built on 'islands' of Jurassic or boulder clays, which would have been surrounded by marsh in

the past. For many centuries indeed, until the drainage of the fens (see p 7), Ely could only be reached by boat or causeway, and the land on which it lay was known as the 'Isle of Ely'.

Stretches of heathland occur in several districts, the largest of which is the Breckland, an expanse of land some 400 square miles (1,040 sq km) in area, which lies around and particularly to the west of Thetford. The chalk ridge that runs through the region is here covered by glacial sands and gravels, which produce light, thin soils unsuitable for agricultural use. The Forestry Commission has made extensive plantings of conifers in the Breckland since the 1920s. Similar glacial deposits near the Suffolk coast have given rise to expanses of heath, common and woodland, known as the Sandlings. Heathland is also found around the royal estate of Sandringham in north-east Norfolk, where the cretaceous greensand emerges from beneath the chalk.

The Broads in Norfolk (see photograph, centre pages) are distinctive reed-lined creeks and meres around the Bure and Yare rivers, which originated as peat workings of medieval times that subsequently became flooded as the sea level rose. Vegetation now steadily encroaches on the open water.

The coastline of the region is subject both to erosion and accretion at differing points, giving rise to varied scenery of cliffs, spits and beaches of sand and shingle, salt marshes and dunes. Erosion has been most marked in north-east Norfolk and on parts of the Suffolk coast. Spits have been deposited at a number of places on the eastern coast, particularly at Orford Ness, but the most notable area of accretion is on the north Norfolk coast west of Blakeney, where sand and shingle deposits allow salt marshes and dunes to grow inland of them. Many of these are now designated as bird reserves (see p 37).

The principal rivers draining into the Wash, in the west of the region, are the Nene and the Ouse; the eastern side is drained by a series of short, independent streams and rivers, of which the largest are the Yare, Bure, Waveney, Deben and Stour. The Little Ouse combines with the Ouse and the Waveney to make a virtual island of Norfolk.

Climatically the region lies in the driest part of the British Isles (that between the Wash and the Thames) with an annual average rainfall of 23 inches (58 cm) compared with a national average of 43 inches (109 cm). The region also experiences significantly more sunshine hours than the rest of the country with warmer summers, but with colder winters. On-shore winds in summer sometimes lead to mist in coastal districts.

HISTORY

EVIDENCE of human settlement in East Anglia dates from the Acheulean culture of the Paleolithic period (*c* 250,000 BC). Finds of flint implements in gravel beds at Whitlingham in Norfolk and Hoxne in Suffolk, among other places, indicate open settlements in river valleys. Mesolithic (*c* 8000–3500 BC) flint tools are also found, generally on lighter soils, one of the best examples being the site at Kelling in Norfolk.

Neolithic (*c* 3500–1700 BC) and Bronze Age (*c* 1700–500 BC) cultures are better represented. The population tended to concentrate in areas where the soil was relatively easily worked, such as the Breckland in Norfolk and Suffolk, the Cromer Ridge, the drier parts of the fens and the chalk area south of Cambridge. Dense woodlands in mid-Norfolk and mid-Suffolk and extensive marshlands in the region of the Wash would have been natural barriers to any expansion of settlement. Indeed the region long continued to be accessible overland only by the chalk ridge to the south-west. The chief Neolithic remains include the flint mines at Grimes Graves near Brandon in Norfolk, long barrows, the henge (a circular area surrounded by a ditch and embankment) at Arminghall in Norfolk and evidence of long occupation of the fens round Mildenhall in Suffolk and along the Cam. Traces are also found during this period of the Beaker folk who came from the Rhineland (*c* 2000 BC). Bronze Age finds include round barrows and indicate that there was contact with other regions via the chalk ridge in the south-west and penetration into the forests in the southern and eastern parts.

The Iron Age (beginning *c* 500 BC) saw fresh invaders from the Continent, including, in the third century BC, a people from the South Marne area of France. These founded the dynasty that ruled the Iceni of Norfolk and Suffolk, who twice rose in rebellion against the Roman invaders of AD 43. The second of these unsuccessful uprisings was led by Queen Boudicca (Boadicea) in AD 61.

Under the Romans a flourishing villa agriculture developed in parts of Norfolk and Suffolk and Caister-by-Norwich became an important town. More extensive remains, however, are found in the Huntingdon district of Cambridgeshire. Through here passed Ermine Street, the main Roman road in England, running from London through Lincoln to York. Small walled towns were built at Godmanchester, Chesterton and Caston. Even more impressive is evidence of occupation on the islands and in the marshlands of the fens, a development which must have entailed extensive drainage works. The Car Dyke canal north of Cambridge was also constructed by the Romans.

Little is known of the early period of invasions by Angles and Saxons that began in the fifth century AD, but by the seventh century a well-defined East Anglian kingdom had become established in Norfolk, Suffolk and the western parts of Cambridgeshire. Early remains of these Anglians include burial grounds, the outstanding example being the burial ship at Sutton Hoo, in Suffolk, which shows that the region had regular contacts with the Continent. In the middle of the seventh century East Anglia was at war with the rival Mercian kingdom of the Midlands and the North and for much of

the succeeding century was subservient to it. Danish invaders settled in the late ninth century and East Anglia became part of that area of England, stretching from Yorkshire to Essex, which was subject to the Danish legal system (the Danelaw). Following the defeat of the Danes by the West Saxon kings, Alfred and his son, Edward the Elder, East Anglia became subject to West Saxon rule in the early tenth century. The Danes returned, however, and the Anglo-Saxon period drew gradually to a close.

Organised Christianity had come to East Anglia in 631 when the reigning monarch, a convert, appointed a bishop to a see in Dunwich. Although Christian worship was suppressed by the Danes, the church re-established itself and its influence on economic and administrative affairs was particularly strong from the eleventh century, when monastic orders became especially active, to the Reformation in the sixteenth century. The very great number of churches and other religious buildings dating from this period are evidence of the strength of piety in the region. Many pilgrims visited two famous shrines: that of the Christian martyr, King Edmund, who was killed by the Danes in 969 and buried in the town that now bears his name, Bury St Edmunds; and the shrine of Our Lady of Walsingham in Norfolk, built in 1061.

The Domesday Book, compiled in 1086 after the Norman invasion, reveals that in many ways the Anglo-Saxon period had seen the establishment of features of the region that have remained to the present century. An administrative system of local government had been evolved, based on the units (the shire, the hundred and the township) that have their counterparts—county, district and parish—to this day. Much of the present-day pattern of settlement had also been more or less established.

The Norman invasion of 1066 brought a considerable measure of stability to the whole country. The history of East Anglia from this time on is more notable in its economic aspects, since the region was seldom to be violently caught up in the political upheavals of the Tudor and Stuart periods. East Anglia was largely pro-Yorkist in the Wars of the Roses but was unaffected by the fighting. Protestant influence was strong in the region in the sixteenth century, reflecting the proximity to the Continent and the influence of Lutheran theologians at Cambridge. However, although there was much sympathy for the Reformation, Catholic loyalties remained strong in Suffolk. In the Civil War, the eastern counties supported the Puritan cause and formed a pro-parliamentary association, but there was strong royalist sympathy at Cambridge University and in Huntingdonshire, ironically in view of the fact that the Puritan leader, Cromwell, was a citizen of Huntingdon. Only in Huntingdonshire was there any serious fighting. Apart from episodes such as these, and local incidents such as the resistance to the Normans of Hereward the Wake at Ely and the Norfolk rebellion of 1549, the life of the region since the Norman conquest has been marked mainly by its economic activity and by the peaks of prosperity to which this led.

The Domesday Book shows that in the Anglo-Saxon period the extensive forests of the region had been cleared and, despite the wars and invasions, a thriving agriculture had arisen. Norfolk and Suffolk were the most populous and prosperous counties in England. In Cambridgeshire and Huntingdonshire agricultural development was less advanced, partly because the two

counties had constituted the frontier between the Anglian and the Mercian and Saxon kingdoms, and partly because the Roman fen drainage had fallen into disuse and the marshes had once more extended over a large area inland of the Wash.

The early medieval prosperity of East Anglia, evident from the many outstanding examples of Norman and succeeding styles of architecture in the region and from accounts of great fairs held in the market towns, was largely based on arable farming. An early tendency towards enclosure, however, for the purpose of raising sheep, is noticeable in Norfolk and Suffolk which had retained old Scandinavian elements of land tenure; the common field system was slightly less widespread than in other parts of England and there was a stronger tendency towards small independent holdings, reflecting somewhat freer social conditions. Manors were smaller and so was the basic unit of land-holding—the furlong rather than the field. A more active market for land existed, tending to result in greater concentrations of ownership, and it seems that agricultural change was more easily achieved in these conditions. The tendency towards enclosures was not universal, however; Cambridgeshire remained largely unenclosed until the nineteenth century.

The development of sheep farming was to be the basis of still more prosperity, for during the fourteenth century Norfolk and Suffolk, in particular, developed a successful textile and clothing industry. Based on woollen goods (Lavenhams and Kerseys) in Suffolk and on worsteds in Norfolk, Huntingdonshire and Cambridgeshire, East Anglian textiles became famous throughout Europe. Norwich became one of the great trading centres of medieval England, and Yarmouth, in the fourteenth century, was rivalled only by Bristol in the volume of trade flowing through it. Competition from Flemish rivals led to a small decline in the mid-sixteenth century, but religious persecutions in the Low Countries in the 1570s induced many of the Flemish producers to accept offers to migrate and settle in East Anglia, and the industry revived once more. It prospered in East Anglia up to the eighteenth century—as long as its machinery could be powered by hand.

Meanwhile agriculture in the region, particularly in Norfolk and Suffolk, was significantly developed during the seventeenth and eighteenth centuries, and, along with Essex, Hertfordshire and Leicestershire, the two counties were in the van of English farming. In Norfolk this success was partly based on corn production, which was so abundant that in the 1790s as much corn was exported from the ports of Yarmouth, King's Lynn, Wells and Blakeney as was exported from the whole of the rest of England. The Norfolk system of crop rotation (see p 7) was another reason for the county's high standard of agriculture, since it enabled more livestock to be fed in winter, so providing more manure for the land. Both Norfolk and Suffolk were famous for their livestock, and great cattle fairs held there attracted drovers from all over the country. Scottish Galloway and Angus cattle, in particular, were purchased by East Anglian farmers to be fattened for the London markets. The famous Suffolk Duns, renowned for their milking qualities, were developed during this period and Suffolk was a major supplier of butter to London. The Suffolk Punch, a short, powerful dray horse, had also been evolved. The

county was famous for its carrots, and other notable crops were cabbages, hemp and hops.

In Norfolk the development of agriculture was assisted by a number of reforming landlords, whose names became household words in their time. At the end of the seventeenth century, Robert Walpole senior had cultivated the turnip and clover on his estate at Houghton. He and other Norfolk farmers developed the 'Norfolk system' of four-course crop rotation—turnips, barley, clover and wheat—to replace the fallow system. The introduction of the root crop not only improved the soil but enabled more stock to be kept. The system was popularised by Charles, Second Viscount Townshend (1674–1738), who also showed how the rushy marshes and sandy wastes of his estate at Raynham could be rescued by reviving the process of marling. Another celebrated reformer was Thomas Coke (1750–1842), Earl of Leicester, who experimented on his estate at Holkham with numerous aspects of agriculture. He introduced to his county the rotation of two straw crops and two years under grass, marling, heavy stocking of Southdown sheep and Devon cattle, the use of drilled swedes and improvements in the design of farm buildings and dwellings. Despite the success of these men, their innovations were slow to spread wide.

Cambridgeshire and Huntingdonshire, less prosperous than their eastern neighbours, remained in relative obscurity. The major development here was the draining of the fens, which was pursued in a piecemeal fashion after the Norman invasion. In the mid-thirteenth century royal commissioners were appointed to oversee the repair and maintenance of the embankments and channels of the drainage system. The first large-scale attempt at drainage was made at the end of the fifteenth century in an effort to reclaim the peat areas. Following a Royal Act of 1600 a Dutch engineer, Cornelius Vermuyden, was brought in to direct the reclamation of a large southern area of the fens in the 1630s. The work was finally completed but by 1700 the peat had shrunk and subsided, and artificial methods of drainage had to be introduced. Windmills maintained the situation for a while, but, after serious floods in the late eighteenth century, the region was finally saved by the invention of steam pumping devices at the beginning of the following century.

In the eighteenth century, the increase of traffic along the Great North Road running through Huntingdonshire led to the rise of a flourishing posting trade. Numerous inns were built and Huntingdon became a coaching centre. The advent of the railways led to a decline in the posting trade, however.

From the late eighteenth century onwards, East Anglia began to decline in economic importance. The shift of emphasis in the national economy towards the coalfields and the ports of the west coast and the advent of water and steam power made other regions both more populous and more prosperous. Yorkshire and Lancashire became the major textile centres and the worsted industry collapsed in East Anglia, becoming concentrated in Bradford.

The development of the railways in the nineteenth century brought few economic benefits to the region, except to Peterborough, which became an important rail centre.

Industry was confined to activities with a strong craft tradition, based on

small production units and serving only local markets. Small market towns declined and concentration around the main centres in the region took place. By the end of the nineteenth century there had been an overall fall in the population of many small towns and villages, and the agricultural depression that began at that time led to a decrease in the labour force employed in agriculture. From a position of importance and prosperity, therefore, East Anglia had been transformed into a region well away from the main axes of development in the country, and its primary industry, agriculture, was depressed.

This state of affairs continued until the 1930s when the revival in the national economy and increased attention paid to agriculture led to a rise in the prospects of the region. It was at approximately the same time that there were signs that more extensive industrialisation would take place. Industrial enterprises, including firms that had become well known, had been establishing themselves since the late nineteenth century. But agriculture had remained the primary industry, and many of the new enterprises were based on agriculture—agricultural engineering firms, canning and processing firms and the like. Others had been inspired by scientific research at Cambridge University—examples are scientific-instrument making and electronics.

It is in the post-war period that the principal signs of industrial development are to be seen. The rapid growth of the population—more rapid than in any other region—in the new and expanding towns to the south and west of the region is the most marked feature of this development. Growth in manufacturing and service employment has tended to concentrate in these expanding towns and the established urban areas (Norwich, Ipswich, Cambridge and Peterborough) and, with agriculture contracting from the employment point of view (though not as an industry as a whole), it is now recognised that the region is in transition.

THE ECONOMY TODAY

THE EAST ANGLIA economic planning region is the least populous of the English regions and human settlement is still distributed in patterns determined by a traditional agricultural and market town economy. Agriculture and associated activities are still vitally important, but since the second world war the region has entered into a transition period in which population and industrial growth have occurred at a faster rate than in any other part of the country. The most obvious trend has been the movement of people and of new employers into the south and west of the region from London and south-east England. Increasingly there are tendencies towards larger work units and towards managerial control from outside the region. East Anglia is well placed to benefit from Britain's membership of the European Community. Its ports have expanded considerably and are likely to continue doing so.

POPULATION AND EMPLOYMENT

The region is much the least populous of the English economic planning regions with an estimated resident population of 1,758,300 in mid-1974. The next lowest region, the North, had an estimated 3,127,400 inhabitants. The number of people per square mile was also the lowest at 363, compared with an average for England of 922. The total land area of the region is 4,850 square miles (12,564 square kilometres).

Of the total population 870,000 were males and 888,000 were females, although in the 15-44 age-group the majority was reversed, with 357,000 males to 334,000 females. The percentage of the population under 15 years of age was 23·1 per cent compared with an average for Britain of 23·7 per cent. Persons over the age of 65 represented 14·9 per cent, a figure somewhat higher than the national figure of 13·8 per cent. Live births per thousand of the population were for many years below the national figure, but in 1972 East Anglia overtook the national birth rate and in 1974 reported 13·5 births per thousand residents against a national figure of 13·2.

The distribution of population throughout the region still basically reflects the pattern of settlement determined by the medieval economy: a network of small market towns and ports serving the villages of the agricultural hinterland, with a few larger commercial and ecclesiastical centres. There is no really large urban mass in the region.

In mid-1974 the estimated populations of the largest settlements¹ were as follows: Ipswich (122,500), Norwich (119,800), Cambridge (104,000), Peterborough/Fletton (88,000), Lowestoft (53,700) and Great Yarmouth (49,400). The next largest centres were King's Lynn (30,700) and Bury St Edmunds (27,100) and these were followed by a number of settlements in the 10,000-20,000 range: Felixstowe (19,800), St Neots (18,300), Huntingdon/

¹The boundaries of these 'settlements' are those of the administrative units of local government—county boroughs, municipal boroughs and urban districts—that disappeared on 1 April 1974 when local government in England and Wales was reorganised. These units remain, however, the best index to concentrations of population.

Godmanchester (17,500), Wisbech (17,000), Thetford (16,200), Haverhill (15,000), March (14,600), Newmarket (13,700), Whittlesey (11,000), Ely (10,500) and East Dereham (10,200). All these settlements taken together account for about 43 per cent of the population of the region. About half of the rest of the region live in market towns of less than 10,000 persons and the remainder in the thousand or so villages with populations of less than 1,000.

Up until the mid-1930s the agricultural depression and the lack of other employment opportunities in the region had, for some time, resulted in outward migration. But population growth has accelerated since then. Between 1951 and 1961 the home population of East Anglia grew at a rate of 7·3 per cent, not far behind the leading region (East Midlands, 7·8 per cent) and well ahead of the figure for England and Wales (5·4 per cent). By the 1960s the region was growing at a faster rate than any other, achieving a growth rate of 13·2 per cent between 1961 and 1971 against 5·8 per cent for England and Wales. Natural increase has played some part in this process, but by far the most dramatic development has been the inward flow of migrants, mainly from London and south-east England. Much of this migration was planned. Following the Town Development Act of 1952, a number of local authorities decided to accept London 'overspill' population and expand East Anglian towns. Nine towns now have schemes, agreed with the Greater London Council, in operation. They are—in Suffolk: Bury St Edmunds, Haverhill, Brandon/Mildenhall, and Sudbury; in Cambridgeshire: Huntingdon and St Neots; and in Norfolk: Thetford and King's Lynn. Peterborough, moreover, has been designated as a 'New Town' under the New Towns Act of 1965 and is scheduled to expand rapidly in the 1970s and 1980s. Even planned migration, however, has been overshadowed by voluntary migration. There are two main streams of voluntary movement. One, consisting of younger working age families, is directed towards the new and expanding towns. The second stream of more elderly migrants, retiring or anticipating retirement, is attracted by the more picturesque or rural areas. The East Anglia Regional Strategy Team (see p 29) has estimated that the population of the region could rise by 260,000 between 1971 and 1981, to reach a total of 1·94 million, and that by 2001 the population could have risen to 2·6 million.

Employment

The total civilian labour force in the region was estimated at 756,000 in June 1974, of which 482,000 were men and 275,000 were women; 665,000 were employees in employment, 80,000 were employers or self-employed and 11,000 were unemployed.

The percentage of people in the region who are economically active is about the same as the national average for men, but is slightly lower for women. Employers and self-employed represent a significantly higher proportion of the labour force than is the case for the country as a whole (10·6 per cent for East Anglia compared with 7·8 per cent for Britain), reflecting the relatively high levels of activity in agriculture, horticulture and tourism.

The proportion of employees in the region engaged in agriculture, forestry and fisheries was 6·9 per cent at June 1974, more than twice the figure for

any other region and considerably higher than Britain as a whole. The construction industry, with 7 per cent of the region's employees, also had a higher than average share. The proportion employed in manufacturing, however, was only 30·7 per cent compared with a national average of 34·5 per cent. The proportion of persons employed in other sectors within the region at June 1974 were: mining and quarrying 0·4 per cent; gas, electricity and water 1·4 per cent; and services 53·6 per cent. Within the manufacturing sector the proportion of people employed in food, drink and tobacco and in timber and furniture production was higher than the national average, but smaller proportions were employed in shipbuilding, chemicals and vehicle manufacture. Metal manufacturing, textiles, metal goods and coalmining are almost negligible in the region. In the service sector, insurance, banking and finance had a smaller than average share of the number in employment, owing largely to the concentration of these activities in London. Table 1 gives a detailed breakdown of employment by industry.

Table 1

CENSUS OF EMPLOYMENT (EAST ANGLIA REGION) JUNE 1974

TOTAL, ALL INDUSTRIES AND SERVICES							
Total males and females	..	..	..	..	..	..	665,000
Total all manufacturing industries	..	..	..	..	..	..	204,800
Agriculture, forestry and fishing	..	..	..	..	..	..	46,200
Mining and quarrying	..	..	..	..	..	..	2,400
Food, drink and tobacco	..	..	..	..	..	..	41,700
Chemicals and allied industries	..	..	..	..	..	..	9,900
Metal manufacture	..	..	..	..	..	..	2,100
Mechanical engineering	..	..	..	..	..	..	29,800
Instrument engineering	..	..	..	..	..	..	4,900
Electrical engineering	..	..	..	..	..	..	24,100
Shipbuilding and marine engineering	..	..	..	..	..	..	3,500
Vehicles	..	..	..	..	..	..	18,000
Metal goods, not elsewhere specified	..	..	..	..	..	..	6,000
Textiles	..	..	..	..	..	..	2,900
Clothing and footwear	..	..	..	..	..	..	11,300
Bricks, pottery, glass, cement, etc	..	..	..	..	..	..	6,800
Timber, furniture, etc	..	..	..	..	..	..	10,300
Paper, printing and publishing	..	..	..	..	..	..	19,600
Other manufacturing	..	..	..	..	..	..	13,000
Construction	..	..	..	..	..	..	45,200
Gas, electricity and water	..	..	..	..	..	..	9,500
Transport and communications	..	..	..	..	..	..	40,500
Distributive trades	..	..	..	..	..	..	84,300
Insurance, banking, finance and business services	..	..	..	..	..	..	25,000
Professional and scientific services	..	..	..	..	..	..	105,500
of which: Educational services	..	..	..	..	..	..	60,400
Medical and dental services	..	..	..	..	..	..	31,100
Miscellaneous services	..	..	..	..	..	..	67,800
Public administration and defence (excluding HM forces)	..	..	..	..	..	..	33,600

Source: *Department of Employment Gazette*, July 1975.

Over the last decade the number of persons in employment has generally increased at a faster rate than in other regions, but the increase has not been evenly distributed among the differing sectors of industry and nor have all parts of the region benefited equally. The growth of employment has taken place in manufacturing (especially in engineering and electrical manufactures) and in professional and scientific services, and has tended to concentrate in the major urban centres and in the expanding towns lying mainly to the south and west. In agriculture, technological advances, such as the increasing use of machinery and of nitrogenous fertilisers, have led to a decline in the number of employees from about 60,000 in 1966 to just over 46,000 in 1974. Employment opportunities have therefore contracted somewhat in the north-eastern and central rural areas, though some new firms have moved into these areas, attracted by the availability of female labour.

Wage rates in the region have long been below the national average; in 1974 the average weekly earnings of male manual workers were £46.6 in East Anglia compared with a national figure of £48.6; even the wages of agricultural workers in the region have generally been lower than elsewhere. Once again there are local and sectoral disparities in wage levels within the region, for much the same reasons as the disparities in employment opportunities. The region also has the highest average number of hours worked per week of all the economic planning regions.

AGRICULTURE, FORESTRY AND FISHERIES

Historically agriculture and industries dependent on it have played the major role in the economy of the region, which is one of the most fertile and productive in the country. About 84 per cent of the land area is agricultural land of one sort or another, compared with about 78 per cent for Britain as a whole. The total number of persons engaged in agriculture in mid-1974 was 61,337, representing a much higher proportion (8.1 per cent) of the civilian labour force than is the case for Britain as a whole where agriculture accounts for 2.7 per cent of the labour force. Employees comprised 44,400 of the total agricultural work force in the region, the remainder being either employers or self-employed.

Of the 2.5 million acres (1 million hectares) of land in agricultural use in June 1974, 84.4 per cent was arable, 10.7 per cent permanent grass and 2.1 per cent rough grazing, the remainder being woodland or other agricultural land. Over the last 20 years the expansion of arable land has led to a considerable reduction in the area of grassland. The proportion of the agricultural land given over to arable farming in the region is more than twice the proportion for Britain as a whole.

There are approximately 16,250 agricultural holdings in the region, of which about half are more than 50 acres (about 20 hectares) in size. Over 2,300 of the holdings are more than 300 acres (about 120 hectares) in size, giving a higher proportion of large holdings in the region than is the case in the country as a whole, and reflecting a general trend towards larger units. There is a lower proportion of medium-sized holdings in East Anglia than in Britain generally.

The combination of good soils, favourable climate and a tradition of farming methods employing a scientific approach and a high degree of mechanisation, has made the region one of the most progressive, agriculturally, in Britain and few other parts of the country have such continuous stretches of intensive cultivation. Of the total agricultural area, about one-third is classified as above the national average in quality, while another half approximates to the national average.

The region is a major supplier of wheat, barley, potatoes, sugar beet, fruit and vegetables, and, although it is more important as a crop production than as a livestock-raising area, pig and poultry farming have been developed to a significant degree. Table 2 shows the amount of land in the region devoted to the leading crops and the proportion that this represents of the total area for each crop in England and Wales. The high quality of the soils in East Anglia often makes it possible for farmers to obtain higher yields per unit of land than can be obtained in other regions.

The light loam soils of Norfolk and Suffolk are the principal barley lands in England and just under 30 per cent of the agricultural land in these two

Table 2

SELECTED CROPS IN EAST ANGLIA (ACREAGE AT JUNE 1974)

	Acres ('000)	Hectares ('000)	Percentage of England and Wales
Total agricultural area ..	2,518	1,019	9·2
Total cereals	1,370	554	17·2
of which:			
Wheat	633	256	21·4
Barley	691	280	15·4
Potatoes	86	35	20·4
Sugar beet (not for stockfeeding)	255	103	52·9
Total horticulture	166	67	25·3
Orchards (grown commercially)	18·4	7·5	15·1
Small fruit	9	3·6	27·7
Vegetables for human consumption (excluding potatoes)	133	54	29·1
of which:			
Green peas for processing	39·8	16·1	29·2
Peas for harvesting dry	27	10·9	40·6
French beans for processing ..	12·5	5·1	50·7

Source: *Agricultural and Horticultural Returns, England and Wales—June 1974 Final Census Results*, Ministry of Agriculture, Fisheries and Food.

counties is under barley. Much of the crop is of good malting quality and a high proportion of it is used in brewing and whisky manufacture. Wheat predominates in the fens in the north-west part of the region, and is grown extensively on the loam soils of the central plateau and on the stickier soils of west Suffolk.

The region is easily the most important area of sugar-beet production in the country, with Norfolk alone accounting for about one-quarter of the total area planted in England and Wales. Production of the crop was encouraged in Britain during the 1920s, in a period of relative agricultural depression. Its advantage over other crops used to provide a break in cereal rotation was that it provided a direct cash return; other root crops could only be fed to stock. It has become firmly established in the fens and light lands of Cambridgeshire and Norfolk and in parts of Suffolk. Mechanical techniques and the use of fertilisers are so highly developed that the crop hardly requires hand labour.

Potatoes are grown in the fenlands of Norfolk and Cambridgeshire, though the acreage devoted to this crop has been declining in recent years. Vegetable crops such as peas and beans are grown for the freezing industry based on the fishing ports, particularly Great Yarmouth and Lowestoft. Other important vegetables are celery, cabbages, carrots, onions and broad beans. Fruit of various kinds is grown in nearly all parts of the region but the fenland area around Wisbech and the Isle of Ely is particularly notable for apples, plums cherries and soft fruits such as strawberries, blackcurrants and gooseberries.

Livestock raising is an important source of income for many farmers. In previous centuries sheep and cattle provided the basis for much agricultural prosperity but the importance of these has greatly diminished, although dairying is still significant in the river valleys and on reclaimed coastal marshlands. The production of pigs and poultry by intensive methods has become a major industry, especially in Norfolk and Suffolk. In 1974 Norfolk had more fowls, geese and turkeys than any other county, and was second only to Lincolnshire in the number of ducks. Altogether East Anglia had 14·2 per cent of all poultry in England and Wales.

South Cambridgeshire was for centuries famous for horse breeding and although the activity is now less widespread, Newmarket, lying on the borders of Cambridgeshire and Suffolk, is still the most important centre for the sale and training of horses in the country and is the home of the National Stud.

The prospects for agriculture in the region are, on the whole, favourable. Although the area of agricultural land is expected to decrease slightly, owing to the growth of built-up areas, the area of land devoted to arable farming may not be affected. This is because the prosperity of this kind of farming is likely to be enhanced by Britain's membership of the European Community and consequent adoption of the Common Agricultural Policy (CAP) and to, increase pressures to convert areas of grass, heath and woodland to arable use. Both vegetable and soft-fruit production are likely to increase in the future, and the prospects for sugar-beet growers are particularly favourable. In livestock, there is expected to be a marked trend towards more intensive units. The CAP, however, generally involves increased costs for dairy, pig

and poultry farmers so that progress in these sectors, which are important in the region, could be less rapid.

Forestry

The region has about 145,000 acres (58,680 hectares) of forest land, of which some 65,000 acres (26,300 hectares) are owned or leased by the Forestry Commission. The planting of Thetford Forest in the sandy Breckland area was begun by the Forestry Commission in the 1920s and is the State's main forest in the region. Other Forestry Commission forests are in the coastal areas. Thetford Forest sustains a complex of local wood-using industries, including a chipboard factory and a number of sawmills, and other industries further afield. Production averages over 5 million cubic feet (about 141,580 cubic metres) of wood per annum, from both state and privately owned woodlands. About 1,000 men are employed in forestry and associated activities such as transport. The private woodlands are mainly on the higher ground of north Norfolk and Suffolk. The extension of forestry in the region is limited by the high value placed on arable land.

Fishing

Fishing is a long-established activity in the region and Lowestoft ranks as the fifth fishing port in Britain. The Lowestoft fleet at present consists of some 68 trawlers and fishes the North Sea grounds. Plaice comprises the largest part of the catch (approximately two-thirds of it), while cod accounts for another sixth of total white fish landings at the port. Other important varieties are haddock, turbot and sole. The total quantity of white fish landed in 1975 was approximately 362,000 cwt (18,400 tonnes) and the value was approximately £6.5 million.

Inshore landings in the eastern area (Hunstanton in Norfolk to Shoeburyness in Essex) were valued at £1.1 million in 1974 and are expected to be about £1.3 million for 1975. At one time the bulk of the landings consisted of shellfish but there are now also demersal and pelagic fisheries, mostly in the southern part of the district, which are growing in importance.

Plant for the freezing and processing of fish has become well established in the region.

The main Government fisheries research laboratory is at Lowestoft. Research is now mainly directed towards the conservation and exploitation of stocks, the protection of the marine environment and the promotion of new fishing technology.

MANUFACTURING AND SERVICE INDUSTRIES

The main traditional manufacturing industry was that of woollen and worsted cloth, based on sheep farming. The industrialisation of Britain in the eighteenth and nineteenth centuries did not make any significant impact on East Anglia and the rise of mechanical cloth manufacturing elsewhere led to the decline of cloth production in the region. As agriculture turned more and more towards arable farming, various food processing industries arose and firms were established to manufacture agricultural implements for tilling and harvesting. Shoe manufacturing was set up in Norfolk in an

attempt to find a substitute for the clothing industry. It was not until the close of the nineteenth century that there began a very gradual process of diversification into the industries which are prominent today, such as radio, electronics and general mechanical engineering. Since then a wide range of other industries have been increasingly attracted to the region, and in the past two decades this process has occurred at a faster rate than in any other region. East Anglia is still in a transitional stage of industrialisation, however, in relation to other parts of the country.

Engineering Industries

The region produces a wide range of engineering products, from quite heavy capital equipment to light consumer durables, including highly specialised equipment in the electronics and scientific instrument industries. In June 1974 over 80,000 persons were employed in the various types of engineering. Of these 29,800 were engaged in mechanical engineering, 24,100 in electrical engineering, 18,000 in vehicle construction and the remainder in instrument engineering and in shipbuilding and marine engineering. In each of these sectors the number employed has been rising in recent years in contrast to the national figure which has shown a decline. The engineering industries are widely distributed throughout the region, although tending to concentrate on the larger centres of population, particularly Peterborough and Ipswich. There are few examples of local specialisation in particular types of engineering, with the possible exception of Cambridge, where electronics and scientific instrument industries predominate. Among the diversity of engineering products, special mention may be made of agricultural machinery, industrial plant, electrical goods, scientific instruments and vehicle and marine bodies and components.

The importance of agriculture in the region is reflected in the fact that many of the mechanical engineering firms were established in order to make farm implements and machinery. Among the largest of these is Ransomes, Sims and Jefferies of Ipswich, which was founded in 1789 to make ploughshares. As with other firms there has been diversification into other engineering sectors and the company now produces a wide range of farming, industrial and domestic machinery, ranging from tillage and harvesting implements to mowers, electric lift trucks and tractors. Another major firm with a strong agricultural connection is the Perkins Engines group of Peterborough, now part of the Massey-Ferguson group of companies. Founded in 1932 Perkins is one of the world's leading manufacturers of high-speed diesel engines for a variety of agricultural vehicles, principally tractors and combine harvesters. It has been estimated that every fourth agricultural vehicle in the world is powered by a Perkins engine. The firm is also a major producer of engines for trucks, boats and industrial machinery. With a regional work force of some 9,500 people, the group is one of the two chief employers in East Anglia.

Other general mechanical engineering includes the manufacture of industrial plant and machinery. A leading firm in this sector is the Baker Perkins group of Peterborough (there is no family connection with the Perkins Engines group). Baker Perkins manufactures plant and equipment for the bakery, biscuit, chocolate, paint, chemical, rubber and printing industries, among others. The firm also produces foundry and welding plant

and equipment for refrigeration, bulk handling, mechanical handling and packaging. Other firms making industrial plant include Peter Brotherhood of Peterborough (producing machinery for the man-made fibre and plastics industries as well as industrial and marine steam turbines and generating sets) and Ransomes and Rapier of Ipswich (makers of building plant, mobile cranes, excavators and truck mixers).

Electrical and electronics industries are well to the fore in the region. Cambridge is the headquarters of the famous Pye group (now part of the Dutch-owned Philips group) which has branches in other parts of the region and throughout Britain. The firm was established in 1896 when William Pye left the Cavendish laboratory to design and make instruments for scientific research in the university. Since that date the company has diversified into radio and television developments of all kinds; today electronics, telecommunications and scientific instruments are its special emphases. Among the firm's achievements are the development of the first portable battery radio, the establishment of the first laboratory for television research, and the introduction into Britain of the transistor and stereophonic sound. Altogether, with branches at Haverhill, King's Lynn, Linton, Lowestoft, Mildenhall, Newmarket, Swaffham and Wisbech, the Pye group is the region's largest manufacturing employer, with a total work force of over 10,000. Other important firms include Erie Electronics, which has resistor products and thick film products divisions in Great Yarmouth, and a ceramic capacitors division in Norwich. Also in Norwich is Laurence Scott and Electromotors, manufacturing electric motors, generators and associated control gear.

As in the case of Pye, the university in Cambridge inspired the establishment of other scientific instrument firms, notably the Cambridge Instrument Company, which was founded in 1895 by Sir Horace Darwin (son of Charles). The development of the first scanning electron microscope by this company was revolutionary in its field.

Smaller firms in the electrical and electronic fields are widely dispersed in the region. Among these mention may be made of concerns in Peterborough (electric domestic appliances), East Dereham (electric clocks), Ipswich (electric motors for industry and audio-electronic components) and Norwich and Newmarket (electronic and radio components).

Motor car manufacture has only a small place among the engineering industries of the region, but other kinds of vehicle or vehicle component manufacture are important. Mention has already been made of the manufacture of diesel engines by the Perkins Engines group in Peterborough. Other vehicle manufacturers include Crane Fruehauf and Freight Bonallack, making trailers, transporters and containers at East Dereham and Norwich respectively; the well-known Lotus sports car company at Wymondham; and Eastern Coachworks, a division of British Leyland, in Lowestoft. Caravans are manufactured in a number of places, of which Newmarket is the chief. Marshall of Cambridge design and construct motor vehicles, including coaches, and are also aeronautical designers and engineers, and were responsible for the creation of the 'droop-nosed' effect on the Anglo-French *Concorde* aircraft. Motor and other industrial components are made by Silent Channel Products of Huntingdon.

Shipbuilding and boat construction is naturally well represented in a region with as much coastline and inland waterway as East Anglia. The majority of firms in this sector are fairly small, but there is a considerable number of successful builders of luxury yachts, cruisers and small craft. The largest firm of shipbuilders is Brooke Marine of Lowestoft, which can construct vessels of up to 420 feet (128m) in length or 5,000 tons (4,920 tonnes). Cooper Roller Bearings of King's Lynn supplies split roller and solid bearings that are used in the assembly of propeller shafts for about a third of all vessels launched in Britain.

Food and Drink

In June 1974, 41,700 people were employed in food and drink manufacture, mostly in the processing of fruit and vegetable products. The number employed had risen from 36,700 in 1971, whereas, nationally, employment in the food and drink industries has been declining.

Food processing acquires its importance in the region from the predominance of agriculture and takes various forms, such as the canning of fruit and vegetables, the canning of manufactured foods, frozen food products, the manufacture of sugar and the production of table poultry.

Several well-known firms are located at King's Lynn—Lincolnshire Canners, Campbell's Soups, Dornay Foods and the Fropax frozen food company are the chief examples. Smedley's has factories for vegetable and fruit canning at Wisbech and Thetford, while Bird's Eye has a large factory for freezing sea food and vegetables at Great Yarmouth. Grain is milled at Ipswich, Cambridge and Downham Market in Norfolk. In the case of the large firm of Paul's and Whites of Ipswich the milling is connected with the preparation of animal foods. The British Sugar Corporation (BSC) has its headquarters in Peterborough and produces white sugar, dried sugar-beet pulp and molasses at 17 factories in Britain. Seven of these are in the region, at Bury St Edmunds, Ipswich, Ely, Peterborough, Cantley, Wissington (these last two are in Norfolk) and King's Lynn. The factory at Wissington (see photograph, centre pages) is the largest BSC factory in Britain.

Bernard Matthews of Great Witchingham in Norfolk is one of the largest table-poultry processing firms, producing oven-ready and frozen turkeys. Other firms are at Fakenham and Norwich. Bury St Edmunds is notable for firms producing cooked ham, gammon and bacon, and the well-known Danepak firm has a vacuum-packed bacon factory at Thetford.

Colman's Foods in Norwich is the food division of Reckitt and Colman, and, in addition to its world famous mustard, produces a range of such things as sauces, baby foods, honeys and soft drinks. Also in Norwich is a large factory of the Rowntree Mackintosh group, makers of chocolate confectionery. Chivers and Sons manufacture jams and preserves at Histon in Cambridge.

The brewing of beer and cider is traditional to the region. Among the most important regionally based brewers are Tollemache and Cobbold of Ipswich and Cambridge; Greene, King and Sons of Bury St Edmunds; and Adnams of Southwold. Watney-Mann has three brewery plants in Norwich. The Gaymer's Cider company is situated at Attleborough in Norfolk and malt is brewed at Fakenham and Bury St Edmunds. Table wines and sherries are

imported by Colman and Company of Norwich (a subsidiary of Reckitt and Colman) and Tollemache and Cobbold has a wines and spirits department in Ipswich. The latter firm is also among those manufacturing soft drinks, others being Campbell's of King's Lynn, Greene, King and Sons, Corona in Norwich, and SodaStream in Peterborough.

Clothing and Footwear

Once the most prosperous region in the country as a result of its predominance in the manufacture of woollen and worsted goods, East Anglia now has a work force of no more than 5,000 engaged in the manufacture of clothing. A considerable variety of garments is produced and the industry is strongly localised around Norwich and the border towns of east Suffolk.

Norfolk has a long tradition of footwear manufacture, mainly in Norwich, which was introduced to offset the decline in worsted production. In June 1974 there were 6,300 employed in this industry, mainly in the production of ladies' and children's shoes. Employment has been declining at a somewhat faster rate than in the rest of the country in recent years. Well-known firms in the Norwich area include Bally, Norvic and Start-Rite. Other towns manufacturing shoes are Sheringham and King's Lynn where plastic uppers are produced.

Paper, Printing, Publishing, Timber and Furniture

The paper, printing and publishing industries employed 19,600 people in the region in June 1974, compared with 17,800 in 1971. This expansion contrasts with a national decline in employment in these sectors. Approximately 6,400 were employed in 1974 in the manufacture of paper and board, packaging products and stationery, while 13,200 were in printing and publishing. It would appear that the printing and publishing sector has experienced the most marked expansion in the early 1970s. Commercial and domestic stationery is made by Spicers of Cambridge, a subsidiary of the Reed paper group; packaging materials are produced by Auto-Wrappers of Norwich; and toilet paper and rolls are among the products of the Jeyes group in Thetford. Notable printing firms include Jarrolds of Norwich, which has a high reputation for colour printing and works one of the largest single-colour lithographic machines in the world; the Cambridge University Press, specialising in academic publications; Richard Clay (the Chaucer Press) in Bungay; and W. S. Cowell in Ipswich. A recent arrival in this sector has been the large branch of HMSO in Norwich. Cambridge, Ipswich, Norwich and Peterborough have their own local evening papers, daily morning papers are produced in Ipswich and Norwich, and weekly newspapers are published in many of the smaller towns.

In June 1974, 10,300 people were employed in the timber and furnishing trades—about half in each—compared with 9,500 in 1971. The import and processing of timber is closely linked to markets provided by the building and civil engineering industries and sizable firms are found in the main centres of the region. Mention has already been made of the timber complex on Forestry Commission land near Thetford (see p 15). Furniture manufacture, like printing and publishing, was a growth sector in the early 1970s, with an influx of new companies from the London area into the expanding towns,

particularly in and around Thetford. Ipswich is a well-established centre of furniture manufacture.

Other Manufacturing Industries

Chemicals, plastics, paint, glass, bricks, other building materials, rubber goods, fabrics, brushes, brooms, toys and sports equipment are among some of the other manufactures found in the region. Classification of these is difficult since the large centres and expanding towns are attracting a highly diverse range of new firms to the region.

The number employed in chemical manufacture was 9,900 in 1974, compared with 9,100 in 1971. Some of the major concerns have strong links with agriculture: Fisons has fertiliser divisions in Felixstowe and Ipswich, an agro-chemical division in Harston, Cambridge, and a pesticides division in Norwich; Ciba-Geigy (UK) at Duxford in Cambridgeshire, and May and Baker in Norwich, manufacture agricultural and veterinary chemicals. Each of these firms also has establishments in the region manufacturing industrial and other chemical products. Other well-known firms are ICI at Stowmarket and Dow Chemical at King's Lynn. Jeyes, at Thetford, manufactures disinfectants, cleaners and bleaches.

With regard to other products, the Glass Division of the Wedgwood group is located at King's Lynn and United Glass has a branch in Norwich. Cement and other building materials are manufactured in the region. On the western borders and extending into neighbouring counties is the fletton brick industry where some 3,000 million bricks (about a third of those within the region) a year are produced. The main producer, the London Brick Company, has its headquarters in Peterborough. BSP International Foundations Ltd of Ipswich is one of the leading manufacturers of foundation equipment. Other manufacturers of note are brushes and brooms at Wymondham in Norfolk, vacuum flasks at Thetford, optical and industrial plastics at Beccles, fabrics at Haverhill and Sudbury, and rubber goods, mainly for the motor vehicle industry, around Huntingdon.

Construction and Service Industries

Employment in the construction industry rose from 39,200 in 1971 to 45,200 in June 1974, representing a faster rate of increase than the national average for this industry, and making this the fastest growing of the major employment groups in the region. The town expansion programmes have led to substantial schemes of house, industrial, office, school and hospital building; and road construction and other works. Some of the larger projects are being carried out by 'national contractors' outside the region, but follow-up work and smaller projects are leading to more work for regional contractors. The value of orders for new construction received by East Anglian contractors rose from £105 million in 1970 to £263 million in 1973, falling back slightly to £260 million in 1974. The increase in value between 1970 and 1973 was of a much higher order than that reported for the country as a whole, just as the slight decrease in 1974 was less sharp than the national decline. Completions of permanent dwellings in the region rose more or less steadily from 4.1 per cent of total completions in England, Scotland and Wales in 1968 to 4.9 per cent in 1974.

Distributive trades employed 84,300 in June 1974, an increase of 15,200 on the 1971 figure, and representing 12.7 per cent of the total in employment compared with a national average of 12.1 per cent. Food and drink wholesale and retail distribution engaged 26,900 employees in 1974. A total of 58,500 were in employment in all retail distribution, compared with 50,800 in 1971. In common with the rest of the country, the region has experienced a trend towards rationalisation in retailing, producing fewer, larger shops, often of the self-service variety. Census results show that the number of retail outlets in the region fell from 15,355 in 1966 to 14,200 in 1971. Co-operative society establishments decreased in number by more than 35 per cent, and there were lesser falls in the numbers of independent retailers and multiple stores. The declines were particularly noticeable among dealers in groceries and provisions, other food retailers, confectioners, newsagents and tobacconists, and clothing and footwear shops.

In other service sectors such as insurance, banking, finance, business services, professional and scientific services, catering and entertainment and personal services there have been very considerable increases in the numbers employed in recent years and office developments have been correspondingly numerous. There have been decreases, however, in the numbers employed in hotels and other residential establishments and in local and central government. Insurance and banking are the largest of the financial services. Insurance firms include one internationally famous example, the Norwich Union Insurance group, controlling 150 branches in Britain and with a network in 60 other countries. National and local banks and building societies are represented in all the larger centres of population.

Educational and medical and dental services employed 60,400 and 31,100 respectively in June 1974.

Tourism is a quite substantial but seasonal source of employment. The main resort on the coast is Great Yarmouth, followed by smaller ones such as Hunstanton, Cromer, Lowestoft and Felixstowe. Boating on the Norfolk Broads and self-catering holidays in chalets and caravans are also popular forms of tourism. Cambridge, with its historic architectural heritage, is another regional tourist attraction.

EXTRACTIVE INDUSTRIES, FUEL AND POWER

East Anglia is poorly endowed with mineral resources and possesses no coal or metallic ore deposits, the nearest supplies lying in the adjoining East Midlands region. Mining and quarrying accounted for only 2,400 employees in June 1974. Sand and gravel deposits, mostly valley gravels and scattered glacial gravels, are used as aggregates in the construction industry. Marine deposits are dredged from banks off the coast of Suffolk but are mostly landed in the London area. Silica sands are worked in the King's Lynn area and are used primarily for glass making, but also as moulding sands. Chalk, which is worked for cement manufacture, is supplied from pits on the Cambridgeshire and Suffolk borders. Smaller quarries produce agricultural lime. Lower Oxford Clay in the Peterborough area is the basis of the important brick industry.

Oil and gas exploration have been undertaken in the North Sea off the Norfolk and Suffolk coasts, giving rise to the growth of service and supply industries, mostly in Great Yarmouth. Natural gas is pumped ashore by pipeline to Bacton in Norfolk but is taken straight through to the Midlands and London regions. It remains to be seen whether East Anglia will develop any significant industry based directly on North Sea gas. Oil deposits found off the coast have not been large enough to make extraction viable so far.

Electricity

Electricity is generated and transmitted as in the rest of England and Wales by the Central Electricity Generating Board and is distributed in East Anglia by the Eastern Electricity Board (which also covers Bedfordshire, Hertfordshire and Essex). The Eastern Electricity Board's programme of rural electrification has been completed and all but the most isolated farmsteads are supplied. In 1965 the conventional oil- and coal-fired stations were supplemented by the region's first nuclear powered station at Sizewell in Suffolk, which has a capacity of 580 megawatts. Plans have been approved for a second nuclear station at Sizewell with a capacity of 2,640 megawatts.

Gas

Gas is supplied in the region by the Eastern Gas Board. It is distributed to virtually all small towns but is unlikely to be extended to smaller communities outside the present distribution system. A programme for conversion to natural gas is well under way.

Water

On 1 April 1974, under the provisions of the Water Act 1973, water resources and all other water matters, including sewage, became the responsibility of the Anglian Water Authority, covering Cambridgeshire, Norfolk, Suffolk, and parts of Buckinghamshire, Hertfordshire, Bedfordshire, Essex, Leicestershire, Lincolnshire and Northamptonshire. Most of the eastern half of the economic planning region is self-sufficient in water supplies, but there are increasing pressures to make water available for export to areas of shortage in the western half of the region and in the South-East economic planning region. Recent investigations into water supply sources include the Great Ouse River Authority's groundwater scheme, scheduled for implementation in 1976, and the Central Water Planning Unit's feasibility study for a Wash Estuary barrage.

Mains sewerage is steadily being introduced in rural areas.

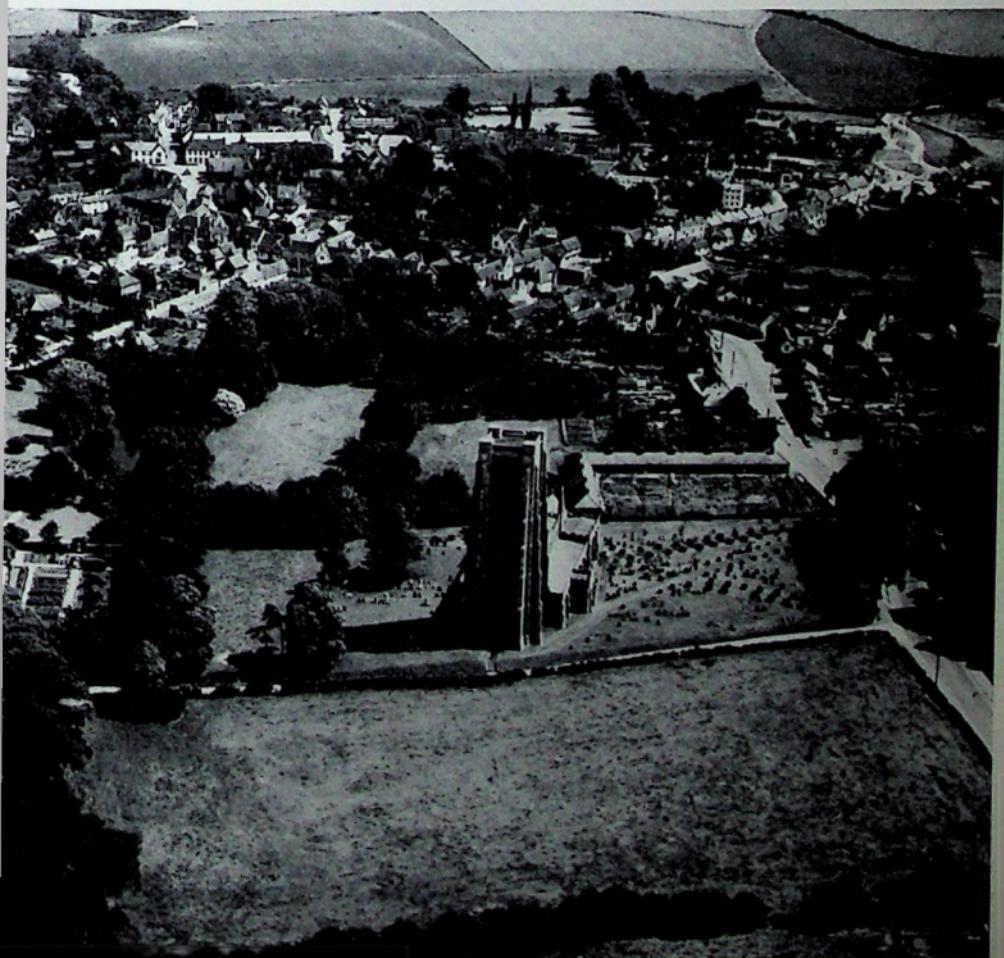
COMMUNICATIONS

In the case of both road and rail transport, north-to-south routes in the region, connecting London and the major East Anglian towns, are better than east-to-west routes, either within the region or leading outwards to the Midlands. The national motorway system does not as yet enter the region, and there have been rail closures in recent years. There is no major airport in the region, though Norwich airport has attracted a growing volume of traffic in recent years. The region's ports are well placed to benefit from increased trade with Europe and rapid growth is expected.

A characteristic Broadland scene—Thurne Dyke in Norfolk.

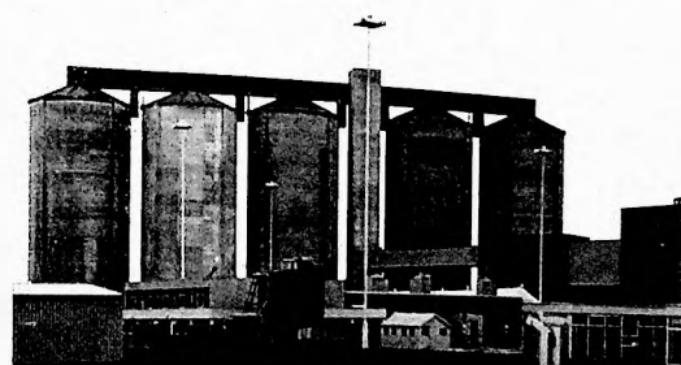


Lavenham is one of the best examples of the Suffolk 'wool' towns that were famous in the fifteenth and sixteenth centuries for their cloth production. The fine Perpendicular style parish church is in the foreground.





Ely cathedral.



Part of the BSC's sugar beet processing factory at Wissington, Norfolk.

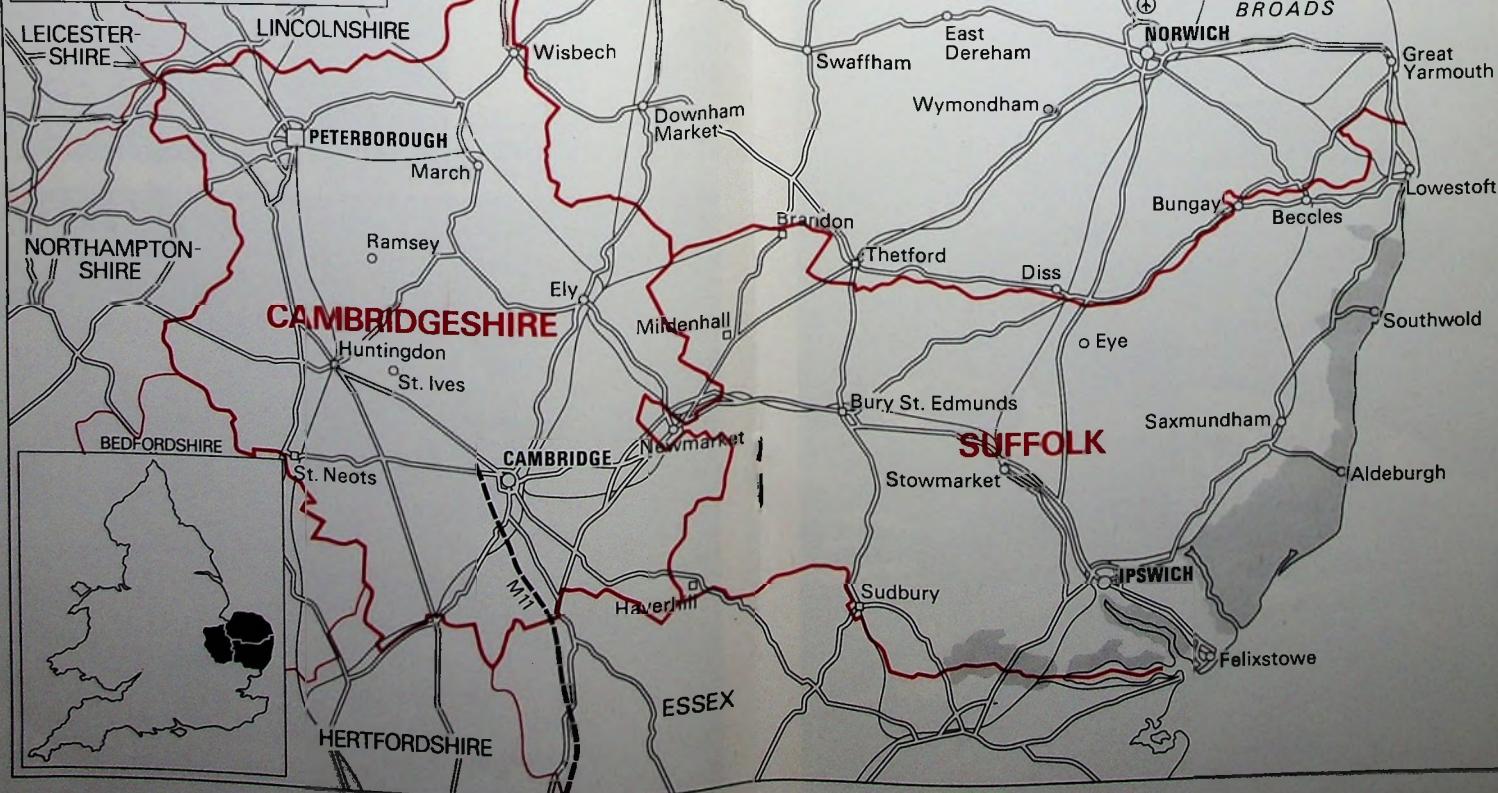
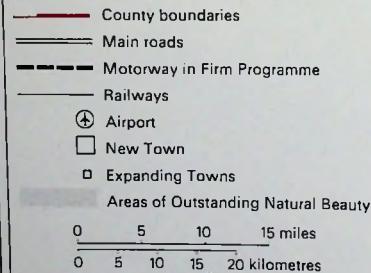
Perkins Engines' V8 production line at Fletton Peterborough.



The ferry terminal forming part of the docks complex at Felixstowe.



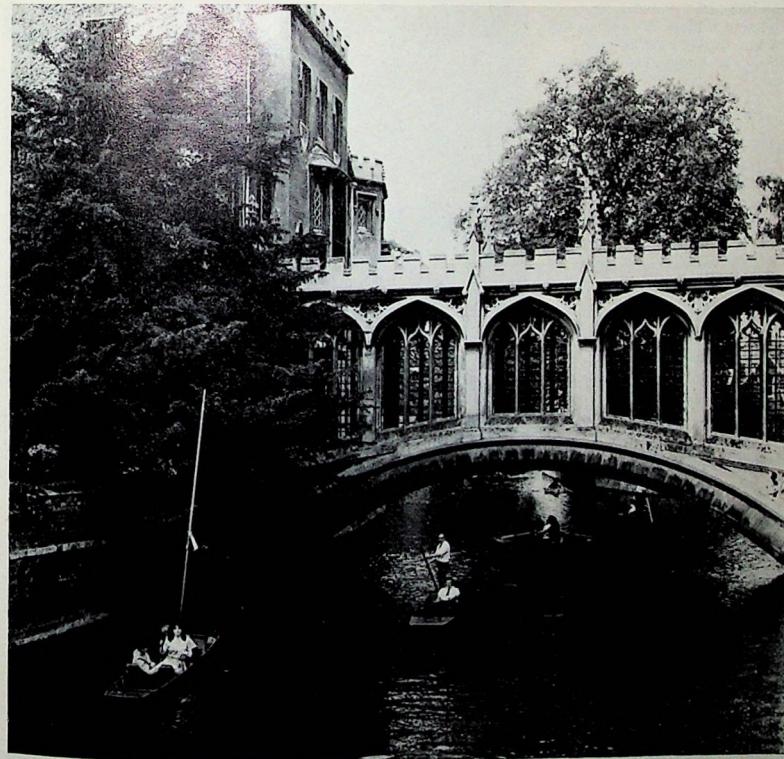
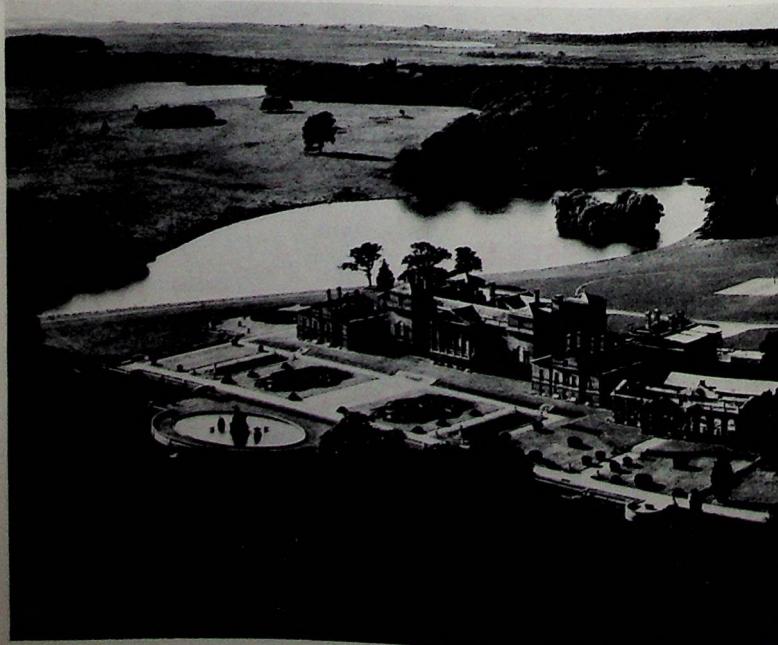
THE EAST ANGLIA REGION





Cambridge University—one of the eight giant radio telescopes built by the Science Research Council.

Holkham Hall in Norfolk.

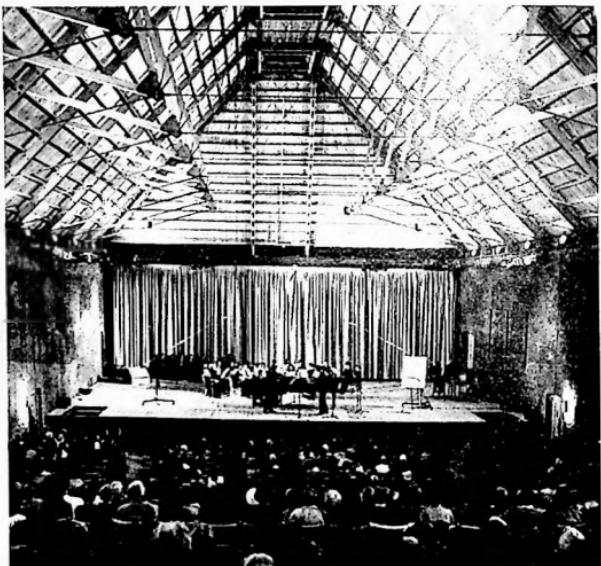


Cambridge University—the Bridge of Sighs of St John's College.

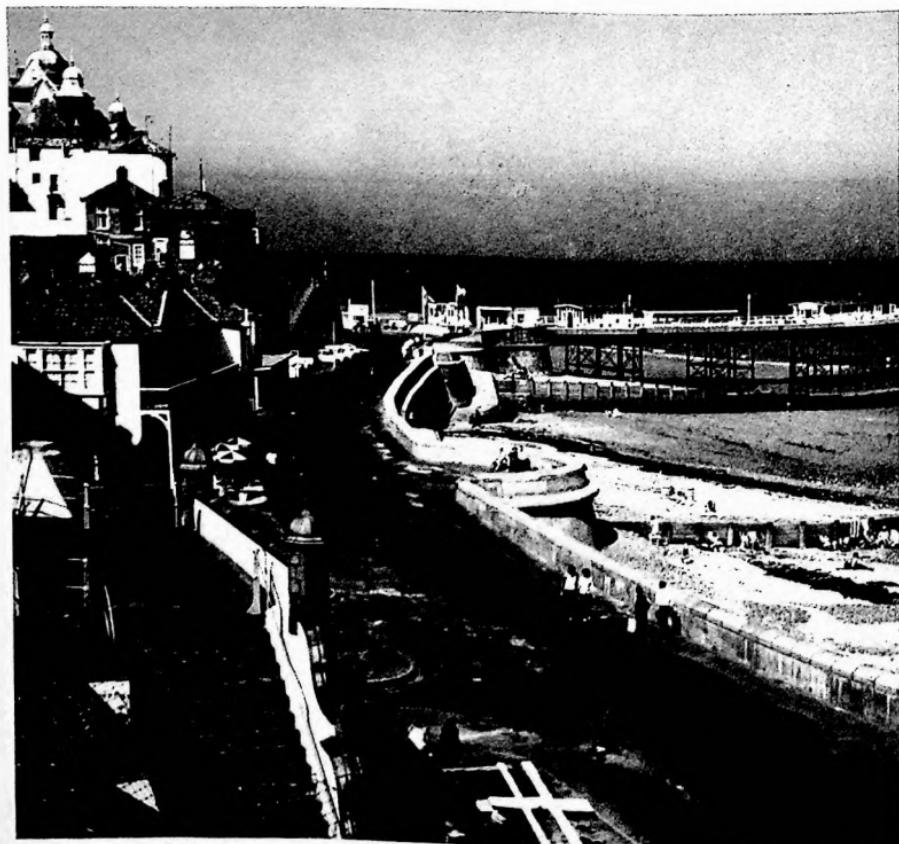


A modern housing estate built by the Peterborough Development Corporation.

The hall of the Maltings at Snape in Suffolk, the setting for many concerts held as part of the Aldeburgh Festival each year.



The seafront at Cromer in Norfolk.



Roads

The main pattern of trunk roads (that is, those roads for which the Secretary of State for the Environment is the highway authority, and which form the main national network of through routes) consists of four north-south routes to London and two east-west links with the Midlands and the North (see map, centre pages). Of the routes originating in London, the A1 traverses the region on its western side, and the A10, A11 and A12 terminate within the region at King's Lynn, Norwich and Great Yarmouth. The two east-west routes link Great Yarmouth, Norwich, King's Lynn and Wisbech with the north Midlands (by the A47 and the A17) and Ipswich, Felixstowe and Cambridge with the south Midlands (by the A45). County councils and other local highway authorities are responsible for a secondary system of 'principal roads' forming a complementary network to the trunk system, linking it with the other towns of the region. Local authorities are also responsible for principal and other non-trunk roads in the towns and for the minor roads which radiate from the smaller townships scattered throughout the region to the local countryside and small villages.

The national motorway system does not enter the region at present and the only motorway section firmly planned is the M11 extension to Cambridge. Policies have been concerned largely with the progressive provision of dual carriageways on major routes and of by-passes to the towns, rather than with providing new routes. Present road improvements are planned mainly for the south of the region, and include the upgrading of the A45 from Cambridge to the east coast. The development of giant industrial and container vehicles in response to the creation of the national motorway system has led to increasing numbers of these vehicles travelling across the region. On east-west routes in particular, there is often heavy traffic during the holiday season.

Rural bus services have suffered a decline in recent years and may be curtailed further. The region consequently has a higher dependence on private transport than elsewhere in Britain: in 1971, 63 per cent of East Anglian households possessed a private car compared with 51·2 per cent in the whole of Britain.

Railways

Fast trunk services are provided from London to Norwich, through Ipswich, Stowmarket and Diss, and with connections to Great Yarmouth and Lowestoft; to Cambridge, Ely and King's Lynn; to Cambridge only; and to Peterborough. East-to-west routes are provided from Norwich through Ely to Peterborough for the Midlands; from Norwich to Cambridge; and from Ipswich to Cambridge with connections to Ely and Peterborough. As in the case of road improvements, the southern and western parts are the most likely to benefit from electrification and high-speed diesel projects. Freight-liner trains (high-speed containerised freight trains operating from special terminals) were introduced in 1974 to connect the terminal at Felixstowe with Manchester, Liverpool and Glasgow.

A number of local services have been withdrawn in recent years. In June 1974, 6,100 were employed in rail transport compared with 7,400 in 1971.

Airports

There are five civil aerodromes in the region, two helicopter sites and a number of military aerodromes offering civil flying facilities. Air Anglia operates schedule and charter flights from Norwich and Great Denes near Yarmouth, mainly to Aberdeen, Teesside and Schiphol airport (Amsterdam) in the Netherlands. The natural gas and oil explorations in the North Sea have led to increased activity for this company, and have also resulted in the creation of helicopter landing sites at Beccles and Lowestoft. Cambridge airport is privately owned and is used mainly for the overhaul and repair of civil and military aircraft. The aerodrome at Nacton near Ipswich is leased to Channel Airways, while flights can also be made to Newmarket on horse-racing days in the summer.

Ports

There are eight ports in East Anglia, under various types of management. Lowestoft and King's Lynn Dock are under the control of the British Transport Docks Board, while Felixstowe is due to become so; Great Yarmouth, Norwich, Ipswich, King's Lynn Harbour and Wells are managed by various types of independent public trust; and Wisbech is the concern of the local authority. In June 1974 a total of 2,600 people were employed in the ports and in inland water transport.

The two largest ports are Felixstowe (see photograph, centre pages) and Ipswich; both have container terminals and roll-on/roll-off facilities for both road and rail. Felixstowe is one of Europe's largest container ports. Next in size are King's Lynn, Great Yarmouth and Lowestoft. In 1974 cargo brought in through Felixstowe totalled 2,530,042 tonnes and cargo out amounted to 1,251,949 tonnes. For Ipswich the corresponding figures for 1974 were 2,325,434 tonnes and 437,006 tonnes. Since the 1960s East Anglian ports have greatly increased their share of British trade.

ADMINISTRATION

FROM medieval times until the end of the last century the boundaries of administrative areas within the region remained much the same. These areas comprised the counties of Cambridgeshire, Huntingdonshire, Norfolk and Suffolk, and two special areas, the Isle of Ely and the Soke of Peterborough, the latter being considered a part of Northamptonshire. In 1888 all these areas were given formal status as units of local government, with Suffolk divided into two units, East Suffolk and West Suffolk. A few years afterwards the boundaries between West Suffolk and Cambridgeshire in the region of Newmarket were redefined. There were no other changes until 1965 when Cambridgeshire and the Isle of Ely were amalgamated to form one county, and another county of Huntingdon and Peterborough was created by a similar amalgamation. In 1974¹ the two new counties formed in 1965 were themselves combined to form a new county of Cambridgeshire; East and West Suffolk were reunited in one administrative area; and the boundaries between Norfolk and Suffolk in the region of Great Yarmouth were slightly modified. At present, therefore, there are three counties—Cambridgeshire, Norfolk and Suffolk—that comprise the economic planning region of East Anglia.

Each county is administered by a county authority and is subdivided into districts, each with a district authority, as follows—Cambridgeshire: Cambridge, East Cambridgeshire, Fenland, Huntingdon, Peterborough and South Cambridgeshire; Norfolk: Breckland, Broadland, Great Yarmouth, North Norfolk, Norwich, South Norfolk and West Norfolk; and Suffolk: Babergh, Forest Heath, Ipswich, Mid-Suffolk, St Edmundsbury, Suffolk Coastal and Waveney (see map on p 26).

The county and district authorities have independent locally elected councils and have separate functions to perform. Broadly the county authorities provide large-scale services, having responsibility for strategic planning, transport (with the exception of trunk roads which are the concern of the Minister of State for the Environment), education, libraries, social services, fire services, police services, consumer protection and refuse disposal. The district authorities are responsible for local planning and development control, housing, all sectors of environmental health (including the collection but not the disposal of refuse), care of cemeteries, crematoria and allotments, and the levying and collection of local 'rates'. The county and district councils have joint responsibility for derelict land, museums, the arts, recreational facilities, the encouragement of tourism and footpaths.

Elections to the councils are conducted on broadly the same basis as parliamentary elections. Councillors are elected for a term of four years; elections for county councillors and district councillors take place in different years. Service on the councils is unsalaried, but members can claim a flat-rate attendance allowance.

Beneath the district authorities there exists a third level of administration, the parish councils, which have a very long history and have remained

¹See COI Short Note, *Reorganisation of Local Government, Water and Health Services*, SN5967/74.

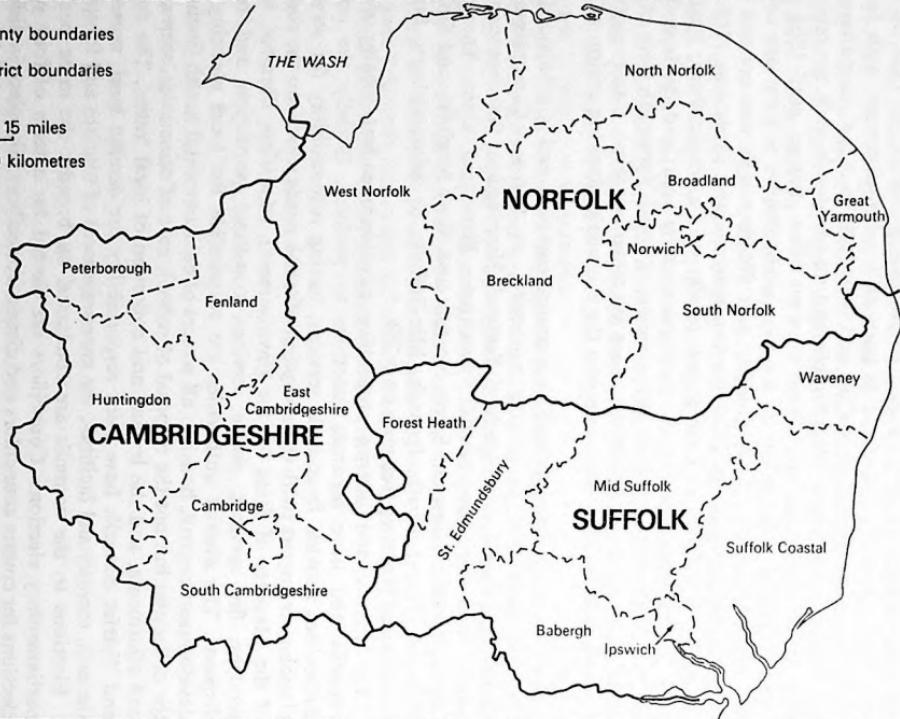
EAST ANGLIA REGION – COUNTIES AND DISTRICTS

— County boundaries

- - - District boundaries

0 5 10 15 miles

0 5 10 15 20 kilometres



largely unaffected by recent changes in local government. Their spheres of responsibility include allotments, arts and crafts, community halls, recreational facilities, footway lighting, the encouragement of tourism, cemeteries and crematoria, footpaths, bus shelters and car parks—in many of which they co-operate with district or county councils. They must be given an opportunity to comment on planning applications for their areas.

Water supply, flood prevention, sewerage and sewage disposal have been, since 1 April 1974, the responsibility of the Anglian Water Authority (see p 22).

Responsibility for certain aspects of the health service was transferred from the local authorities to new regional health authorities on 1 April 1974. These authorities, functioning quite independently of the local authorities, are responsible for the planning of all personal (as opposed to environmental) health services in their region, including public health services and school health services. They control and provide central services for Area Health Authorities, whose task is to implement regional plans. The East Anglia Health Authority is subdivided into three Area Health Authorities, one for each county.

Central Government departments have direct relations with county and district authorities on matters within their control. Central departments represented in East Anglia include the Ministry of Agriculture, Fisheries and Food, the Department of the Environment, the Department of Health and Social Security, the Department of Education and Science, the Department of Industry, the Department of Trade, the Department of Employment, the Ministry of Defence and the Home Office. The Office of the Eastern Region Controller of the Ministry of Agriculture, Fisheries and Food is located in Cambridge, as is the Eastern Regional Office of the Central Office of Information. Many of the other departments that are organised on a regional basis, such as the Department of Industry and the Department of the Environment, have their East Anglia regional offices in London.

The East Anglia Tourist Board, one of 11 regional tourist boards in England, is based in Ipswich and covers the three counties of the economic planning region and Essex.

PLANNING AND DEVELOPMENT

PLANNING and development within the region take place in a context of legislation aimed at making the best possible use of land and environmental resources.¹ The Town and Country Planning Acts have made county councils and their subdivisions the main planning authorities. Alongside this, however, has grown a regional framework for planning, which is the responsibility of the Secretary of State for the Environment. Other legislation has sought to control industrial development in accordance with national economic policies and to relieve the pressure of population in the country's largest urban centres.

Mention is made elsewhere (see pp 36-7) of measures introduced to protect the natural environment, historic buildings and other amenities of the region.

Town and Country Planning

The basis of the modern system of land planning in England and Wales is the Town and Country Planning Act of 1947, which was consolidated in further Acts of 1968 and 1971 (amended in 1972). These Acts establish a centralised planning structure, impose compulsory planning duties on local authorities and make the carrying out of most forms of development subject to the consent of the authorities.

The three county authorities in East Anglia have responsibility for large-scale planning, while the district authorities (see p 25) have responsibility for more local aspects of planning. Under the Town and Country Planning Acts local planning authorities are required to survey their areas and prepare development plans. Of the local authorities in East Anglia, Cambridgeshire County Council formulated a particularly positive development plan in the years following 1947 to curb the rapid growth in Cambridge that had occurred in the pre-war years and preserve it as a historic university city and market town. Severe restrictions were applied on industrial growth and a green belt was later created round the city. The legislation of 1947 proved effective for controlling undesirable development but was less successful as a measure promoting creative and comprehensive planning. Accordingly the later Town and Country Planning Acts provided for a new type of development plan. The new plans, which will gradually supersede the existing ones, are based on a survey of the planning area and contain two parts—a 'structure' plan drawn up by the county planning authority and one or more 'local' plans, usually drawn up by district authorities. The new system emphasises the need for positive planning and enables the public to play a greater part in the planning process.

Regional Planning

In 1964 a framework of planning on a regional basis was established. Eight economic planning regions were created in England and an economic

¹For more detailed information on this and other matters dealt with in this chapter see COI reference pamphlets, *Town and Country Planning in Britain*, R5355/75, and *Regional Development in Britain*, R5804/74.

planning council and an economic planning board were set up for each one. The East Anglia economic planning council, established in 1965, has 28 part-time members who are appointed as individuals with wide knowledge and experience of the region. The council is an advisory body with no executive functions; its aim is to assist in the development of economic planning in East Anglia in the context of national policies. It advises on the implementation of regional policies and on the regional implications of national policies. The council can itself obtain advice and information from the economic planning board. The board, which consists of senior civil servants, is mainly concerned to co-ordinate the regional planning work of Government departments and to co-operate with the council in the formulation of regional plans. Since 1970 overall responsibility for regional planning has been vested in the Department of the Environment.

The present stage of regional planning is that of formulating medium- and longer-term strategies, the work on which is carried out jointly by economic planning councils, local authorities and central Government departments. In East Anglia a number of studies and reports have been produced by the council and the local authorities, the most important of which has been the report of the East Anglia Regional Strategy Team,¹ *Strategic Choice for East Anglia*, which was published in January 1975. In February 1976 the Government issued a response to the report. This response, read together where necessary with the report, constitutes the approved strategy for the region. Summaries of the two documents are given below.

Strategic Choice for East Anglia

The report says that East Anglia has developed in a way that makes it recognisably different from other regions. However, its pleasant environment and sense of continuity with the past need to be shielded from the effects of rapid and unbalanced population growth. This growth comprises planned migration from London to the region's expanding towns and voluntary migration, including a large number of persons seeking agreeable retirement areas. On present trends the growth would occur mainly in the south and west of the region and in the four major towns of Norwich, Ipswich, Cambridge and Peterborough. Existing services and facilities in these parts of the region could become overloaded as a result. Meanwhile, smaller settlements in rural areas elsewhere in the region might become increasingly isolated and stagnant. Accordingly the strategy team recommend that a rate of growth above the projected level should be encouraged in central, northern and eastern parts of the region, while restraint on the rate of growth should be exercised in the south and west of the region, especially in the Cambridge and Ipswich areas. Furthermore, secondary employment and service centres should be developed in areas likely to remain outside the direct influence of the major towns. In particular the towns of King's Lynn, Thetford, Bury St Edmunds and Diss/Eye should be considered for extended growth.

Investment in transport facilities should be made a priority, says the report. For example, public transport in rural areas should be rethought to reduce

¹The team consisted of professional officers drawn from the staff of the local planning authorities and the Department of the Environment, and was supervised by the economic planning council and the local authorities together.

dependence on the private car, and routes to the north and east of the region and across the centre should be improved. Planning with regard to the provision of other community services such as housing, employment, education, health and social services and the provision of shopping facilities should be more flexible, allowing for greater co-ordination between the various agencies, both private and public and national and regional.

The report also defines some of the principles which should direct the management of environmental resources in the region. It concludes with a discussion of how best the future pattern of development in the region should be implemented, recommending that there should be a high degree of co-ordination between those agencies at a regional level which are performing a bridging role between local and central government. More discretionary power for action and more financial resources should be made available to these agencies. It is emphasised, finally, that adaptability is important in the formation of all policies, and that continuous monitoring of trends is needed if the future of East Anglia is to be safeguarded.

Government Response to the Strategy Report

The response accepts the view expressed in the strategy report that population growth represents the major problem for East Anglia because it could exert pressure on the region's main assets: its valuable agricultural land and its largely unspoilt environment. The Government believes that careful preparation on the part of the planning authorities can make population growth compatible with the need to preserve the region's assets and that, consequently, there is no need for any changes in policies concerning migration into the region and population distribution. Restraints will probably be necessary to protect resources and amenities in the south and west, especially in the Cambridge and Ipswich areas, but this is not expected to lead to population growth in the centre and north. The Government recognises that rural areas have special problems resulting from a diminution of the economically active population and a weakening of the economic and social fabric. The response notes that various agencies exist to help with the problems of such areas and that the Department of the Environment is currently reviewing its policies towards them. It would be a matter for local authorities to decide whether or not small growth points should be developed along the lines suggested in the strategy report.

The Government does not believe that the transport system is as unsatisfactory as the strategy report makes out. Nor does it believe that new agencies are needed to help co-ordinate local authority services. It reserves comment on the strategy report's proposals for more co-ordination between and more financial resources for agencies performing a bridging role between local and central government, since both subjects are currently under review in a national context. The Government welcomes the report's recommendations for the protection of agriculture and broadly endorses its guidelines for the management of the environment.

The Government concludes by stating that the two documents—strategy report and response—mark a key stage in the regional planning process in East Anglia. Work will proceed as a continuous monitoring of policies and programmes with more formal reviews as required.

Industrial and Urban Expansion

In addition to general town and country planning measures there are special provisions controlling the location of industry and offices which are designed to secure a better economic balance between different parts of Britain. Certain areas—mostly in the north and west—have been designated as 'assisted areas' in which the Government makes available financial incentives for industrial development. To complement these incentives, applications for planning permission to build factories over a certain size in non-assisted areas must be supported by an 'Industrial Development Certificate' (IDC) issued by the Department of Industry. The IDC control has two main purposes: to steer mobile industrial projects to the assisted areas and to ensure that the development is compatible with the needs and resources of the locality concerned.

East Anglia contains no assisted areas but is well endowed with new and expanding towns which have second priority, after the assisted areas, for industries moving from their associated conurbation. This has resulted in many firms coming to the region from London and contributing to the rapid growth of employment and population.

The new and expanding towns schemes were devised shortly after the end of the second world war.

Under the New Towns Act of 1946 (now consolidated in Acts of 1965 and 1968) the Government is able to designate any area as the site for a new town. Peterborough was one of the 11 towns within a radius of 80 miles (129 km) of London designated as new town areas to help relieve the population pressure in the Greater London area. The development of Peterborough is the responsibility of the Peterborough Development Corporation, which, after due consultation, draws up a master plan which forms the basis of proposals for action that are submitted to the Secretary of State for the Environment. His approval, after consultation with the local planning authorities, constitutes planning permission. The corporation has the power to acquire land and provide houses, factories, offices, estate roads and even, in some circumstances, main services. The town had a population of 81,000 when it was designated in 1967 and is expected to grow to 182,000 eventually under planned migration schemes. In the five years from 1970, when the work of building the new town began, the population increased from 86,000 to 99,000. Approximately 5,000 new houses were built (see photograph, centre pages), a million square feet (92,900 sq m) of new industrial floorspace was made available and more than 60 new firms moved to the town. By-passes round the town had been built, a new river bridge constructed and a massive landscaping programme had been undertaken.

Under the Town Development Act of 1952 voluntary agreements have been concluded between various towns in East Anglia and the Greater London Council to accept people and industry from London. The initiatives for these schemes, unlike the new town developments, are taken by local authorities. Bury St Edmunds, Haverhill, Huntingdon, King's Lynn, Brandon, Mildenhall, St Neots, Sudbury and Thetford are all towns whose planning authorities have reached agreement with the GLC on expansion schemes to take London 'overspill' population.

EDUCATION AND RESEARCH

UNDER THE Local Government Act of 1972 education in the region, from 1 April 1974, became the responsibility of the three county councils of Cambridgeshire, Norfolk and Suffolk. Prior to that date education had been administered by eight local education authorities. The region has a wide variety of schools and numerous institutions of further education, including two universities. Various kinds of research, often connected with agriculture, are carried out at the universities and associated institutes, and at research establishments sponsored by the Government and private industry.

Education

In 1973 there were examples in the region of most of the categories of schools recorded in official statistics (see Table 3). There were schools wholly maintained out of public funds by the local education authorities (including 'county' schools established by the local education authorities and 'voluntary' schools established, for example, by religious denominations); direct grant schools which, though independent of the local education authorities, received a grant from the Department of Education and Science; and independent schools. Nursery schools provide education for children under 5 years of age. Primary schools cater for the 5 to 11 age group, while middle schools cater for older junior and younger secondary pupils between the ages of 8 and 14. Secondary education (for the 11 to 16 and over age group) is provided in three types of school—secondary modern, grammar and comprehensive. 'Special' schools provide education for children who are too

Table 3
SCHOOLS IN EAST ANGLIA (AT JANUARY 1973)

Type	Number	Percentage of total	Percentage for Britain
Wholly maintained:			
Primary	1,029	74·5	69·0
Secondary	191	13·8	15·5
of which:			
Modern	96		
Grammar	28		
Comprehensive	46		
Others	21		
Direct-grant grammar	10	0·7	0·6
Independent	100	7·2	8·0
Grant-aided nursery ..	14	1·0	1·6
Special	36	2·6	4·8
Direct-grant institutions	1		
TOTAL	1,572	100·0	100·0

Source: *Statistics of Education*, Vol 1, HMSO, 1974.

Note: Sums of the component parts may differ from the totals because of rounding.

seriously handicapped, either mentally or physically, to profit fully from education in normal schools.

There were just over 324,000 schoolchildren in the region in January 1974 of whom about 54 per cent were in primary schools and about 38 per cent in secondary or middle schools.

A special feature of educational arrangements in Cambridgeshire is the system of Village Colleges, the first of which was opened in 1930. The basis of the system is that the villages, instead of being dependent on towns for educational facilities, should have their own, growing out of local needs and embracing the whole community. Each Village College houses under one roof the secondary modern school for the area and the centre for adult education and recreation.

There are institutes of further education in or near the larger towns, providing technical and vocational training, including colleges of art and technology, technical colleges, teacher-training colleges and two universities. There were 20 such institutes in the region in November 1973. In addition there were seven institutes, mostly in Cambridge, teaching English to foreign students and 371 evening institutes.

The total number of students of all ages enrolled in grant-aided further education establishments in November 1973 was 113,720 (including part-time, sandwich and evening only courses).

The agricultural interests of the region are represented in the education sector by such institutes as the Norfolk Schools of Agriculture and Horticulture in Norwich, the Isle of Ely College of Further Education and Horticulture in Wisbech, the Chadacre Agricultural Institute near Bury St Edmunds and the East Suffolk Agricultural and Horticultural Institute near Ipswich. Degree courses in agricultural economics and veterinary medicine are offered at Cambridge University.

The Government-sponsored Training Opportunities Scheme makes training and re-training available at local education colleges and in firms in a number of larger centres in the region. There is a Government Training Centre in Norwich.

Of the two universities, the larger is Cambridge University, established in the thirteenth century and one of the oldest and most famous centres of learning in the world, with a strong tradition of scientific investigation. Isaac Newton and Charles Darwin are perhaps the most illustrious scientists of past centuries to have been associated with the university. In the present century there have been important advances at Cambridge in the fields of physics (see p 34) and biochemistry. Other eminent men associated with the university include the poets Edmund Spenser, John Milton, Thomas Gray, William Wordsworth and Alfred Lord Tennyson, while political figures have included Oliver Cromwell, William Pitt the Younger and Sir Robert Walpole. More recently G. E. Moore, Bertrand Russell and Ludwig Wittgenstein have been influential philosophers and logicians.

The university is collegiate in system and its buildings lie mainly in the central and western parts of Cambridge. In addition to administrative buildings, libraries and museums, there are 29 colleges, of which four are for women only and six are for graduate students, and various attached institutions. At present the university has about 12,000 students (of whom

9,700 are men) and a teaching staff of some 1,200. The architectural features of some of the colleges and university buildings are described later (see pp 40-1).

The University of East Anglia in Norwich was established during the university expansion schemes of the 1950s and 1960s. It received its first students in 1963 and now has about 3,500 with a teaching staff of 350.

Research

There have long been research establishments in the region, conducting investigations in two main fields of inquiry. On the one hand there has been a tradition of scientific research, centred on the university at Cambridge, leading to advances in industrial technology; and on the other hand the region's strong farming tradition has made it a natural location for organisations researching into agriculture and related industries.

Scientific research, at Cambridge University and attached institutions, has provided some of the most significant developments of the last 100 years, particularly at the Cavendish Laboratory where some of Britain's most eminent scientists have worked. In the nineteenth century the first director of the Cavendish was James Clerk Maxwell whose theory of electromagnetic waves led to the development of radio communications. Later J. J. Thompson discovered the electron and Ernest Rutherford the atomic nucleus and showed how to transmute it. Sir Lawrence Bragg, another director, was a pioneer in the application of X-rays to the structure of crystals. Today the Cavendish conducts research into diverse fields including radio astronomy, nuclear physics, crystallography, low-temperature physics, neutron spectroscopy and electron microscopy.

Research at Cambridge University is often conducted in co-operation with industrial concerns and departments of government. The Geodesy and Geophysics Department, for example, has worked with companies such as BP, Shell and IBM (UK) and with the Natural Environment Research Council and the Ministry of Defence. The Metallurgy and Materials Science Department works closely with the electricity supply, atomic energy, iron and steel, and aircraft industries. At a more local level the Mineralogy and Petrology Department co-operates with the Cambridge Instrument Company. Though of recent origin the University of East Anglia has also established research departments working with private industry and Government departments.

Other industrial research includes that conducted by the Department of Industry's Computer Aided Design Centre in Cambridge, as well as the work of the Tube Investments Research Laboratory at Hinxton in Cambridgeshire and of the Welding Institute at Abington in the same county. Patscentre International at Melbourn in southern Cambridgeshire is one of the most up-to-date technological research establishments in Europe.

Investigations into agricultural matters and into the related subjects of food and fisheries are conducted throughout the region, Cambridge once again being a focal point. The Agricultural Research Council (ARC), which is supported by a grant-in-aid provided through the Department of Education and Science, supplies funds for a number of institutes and units. Institutes directly controlled by the ARC include the Institute of Animal Physiology at Babraham, Cambridge, and the Food Research Institute at

Norwich, which is associated with the University of East Anglia. The ARC also finances a number of research units comprising teams assembled around distinguished scientists. Such units at Cambridge University are the Unit of Developmental Botany, the Unit of Reproductive Physiology and Biochemistry, the Unit of Soil Physics, the Unit of Invertebrate Chemistry and Physiology and the ARC's Statistics Group. Independent institutes funded by the ARC are the Houghton Poultry Research Station near Huntingdon, the Plant Breeding Institute at Cambridge and the John Innes Research Institute at Norwich, which conducts research into horticulture. Also in Norwich is a station of the ARC's Soil Survey of England and Wales.

Experimental husbandry farms, run by the Ministry of Agriculture, Fisheries and Food, are located at Mepal and Boxworth in Cambridgeshire, and Terrington in Norfolk, while an experimental station has been set up near Bury St Edmunds.

Independent organisations conducting research into agriculture include the National Institute of Agricultural Botany in Cambridge and others at Haughley in Suffolk and Wansford near Peterborough.

At Newmarket are the National Stud and the Equine Research Station, the latter being a branch of the Animal Health Trust.

The Sea Fisheries Research Laboratory established by the Ministry of Agriculture, Fisheries and Food at Lowestoft, conducts research into the stocks of various species of fish in order to assess the effects of fishing and of conservation regulations.

Organisations carrying out research into topics allied with agriculture include the Huntingdon Research Centre, where investigations are made into the toxic properties of pesticides, other agricultural chemicals and food additives, and into human and animal nutrition; the Nutritional Research Unit Ltd, also in Huntingdon; Fisons Ltd, near Ipswich, investigating all aspects of the manufacture and economic use of plant nutrients; and the Shipowners Refrigerated Cargo Research Association, conducting research into the means of transporting perishable cargoes, at Cambridge.

Among other types of research organisation in the region are medical and environmental research institutes of the Department of Education and Science. The Medical Research Council has a number of units attached to Cambridge University. They are the Abnormal Haemoglobin Unit, the Applied Psychology Unit, the Biochemical Parasitology Research Unit, the Laboratory of Molecular Biology, the Development and Integration of Behaviour Unit (a sub-department of the Animal Behaviour Unit) and the Dunn Nutritional Laboratory. Institutes of the Natural Environment Research Council include the British Antarctic Survey and the Culture Centre of Algae and Protozoa, both in Cambridge, while the Institute of Terrestrial Ecology has its headquarters in Cambridge and two stations elsewhere in the region—the Monks Wood Experimental Station in Huntingdon and the Coastal Ecology Research Station in Norwich.

Miscellaneous research institutions include the Glaciological Society, the Scott Polar Research Institute, the Institute of Criminology, the Careers Research Advisory Centre and the Timber Research and Development Association, all in Cambridge, and the Post Office Research Station at Martlesham in Suffolk.

AMENITIES FOR LEISURE AND TOURISM

EAST ANGLIA has much to offer both to the resident and to the visitor. The region was unscathed by the urban and industrial developments of the nineteenth century that have created environmental problems elsewhere in the country, and has many stretches of attractive landscape of various kinds. Facilities for observing wild-life, especially birds, are excellent. The visitor will find numerous unspoiled villages, medium-size country houses, churches and other architectural remains of great interest. There are considerable facilities for holiday-making and sporting activities and there is much of cultural interest, dating back to 5000 BC.

The East Anglia Tourist Board, based in Ipswich, maintains information files on the region's facilities and produces an annual guide (see Reading List) giving detailed tourist information on the region. The board also covers the county of Essex. There are official tourist information centres in some 15 cities and towns in the region.

Countryside and Wild-life

The main features of the scenery of the region are described in an earlier chapter (see pp 2-3). There is generally ready access to the coastline, though in some areas, particularly Norfolk, parts of it are privately owned, and coast roads are few. Inland, apart from the Forestry Commission land in Breckland, the amount of land to which the public has unrestricted access is limited to the many footpaths which cross the intensively farmed arable areas of the region.

Several areas in the region are officially designated by the Countryside Commission as Areas of Outstanding Natural Beauty. With the exception of Dedham Vale on the Suffolk and Essex borders, they are concentrated on the coast and cover almost half its length. The two main stretches lie between King's Lynn and Cromer on the north Norfolk coast, and between Lowestoft and the Stour estuary in Suffolk. The latter has also been designated as a Defined Heritage Coast. The land in these designated areas generally remains privately owned, but agreements or orders to secure additional public access may be made by local authorities. Steps are taken to preserve and enhance the landscape's natural beauty by high standards of development control, and by positive measures, for which Government grants are available, such as tree planting, and preservation and the removal of eyesores.

Other areas considered to be of good landscape value include the Breckland area, most of the chalk scarp running from north to south through the middle of the region, the south and west environs of Norwich, as well as the city itself, the Norfolk Broads and the western fringes of Cambridgeshire.

The Countryside Commission has recognised a number of country parks, including the royal estate of Sandringham Park in Norfolk and Easton Farm Park in Suffolk. Brandon Park and Clare Castle in Suffolk are both administered by the county council. The commission also supports some half-dozen picnic sites in Suffolk. In Thetford Chase and the forest areas the Forestry Commission provides signposted walks, car parks, commercial camping and caravan sites and other facilities.

The navigable waterways of the Norfolk Broads, nearly 130 miles (210 km) long, offer facilities for all kinds of boating, angling and ornithology. The region is well endowed with other rivers and estuaries, of which the most important is the 200 miles (320 km) of navigable water in the Great Ouse complex. Although fenland waterways, unlike the Broads, are not free of locks, journeys can be made from Cambridge, Peterborough and Huntingdon to the Wash at King's Lynn.

Land held by the Nature Conservancy Council and other conservation trusts amounts to almost 3 per cent of the region and, in addition to 20 or so nature reserves, there are nearly 300 sites of Special Scientific Interest, designated for their flora, fauna, geological features or other sources of interest. There are a number of Nature Trails (signposted walks specially laid out to introduce the visitor to plants, animals, trees and so on) and wildlife parks at Kilverstone near Thetford, Great Witchingham in Norfolk, Kessingland in Suffolk and at Peakirk and Thorney near Peterborough.

Mention may also be made of the zoos at Cromer, Banham near Norwich and Linton in Cambridgeshire, and of the aviaries at Holt in Norfolk.

Natural habitats provided for bird life, including those owned by the Norfolk Naturalists Trust, the first to be formed in Britain, are of national importance. Numerous species, absent for many years, have now returned to breed on reserves in the area. Notable birds include the avocet, bittern, ruff and bearded tit. The north Norfolk coast, particularly Scolt Head, Cley marshes and Blakeney Point, the Ouse Washes, Wisbech Sewage Farm, Breckland and the Suffolk coastal areas, including the Royal Society for the Protection of Birds' reserves at Minsmere and Havergate, are among areas of outstanding interest to naturalists.

Architecture

The outstanding architectural features of East Anglia are among its greatest attractions. Two-thirds of the towns and at least half of its villages are considered by the Secretary of State for the Environment to be of historic or architectural importance. The retention of such a high proportion of historic settlements reflects both the prosperity of earlier periods and the lack of development during the relative depressions of the nineteenth and early twentieth centuries. The City of Cambridge, with its university, is particularly important as an example of a conscious attempt to preserve the character of a town. In rural parts the region has a heritage of picturesque villages and domestic architecture. Among individual buildings, cathedrals, churches and country houses of medium size stand out.

The region is not especially rich in stone for building, but there are plentiful clay deposits for brick-making and there are fine examples of building in brick from Tudor times onwards. Over two-fifths of England's bricks are now made from the Oxford Clays found near Fletton, south of Peterborough; 'fletton' is the name applied to the most commonly used type of brick in the country. Also in the vicinity of Peterborough and in the neighbouring counties of Lincolnshire, Northamptonshire and Leicestershire, are deposits of oolitic limestone. Material from quarries in this area has travelled into East Anglia for many centuries; before the draining of the fens it was probably carried along inland waterways by flat-bottomed boats. Stone from the

Barnack area was owned by the monks of Peterborough who granted quarrying rights to other ecclesiastical communities in the region. It was the principal material employed for Peterborough and Ely cathedrals and was also used in the building of Norwich cathedral, but by Tudor times it had been exhausted. Stone from Weldon in Northamptonshire and Ketton in Leicestershire has been extensively used for university buildings in Cambridge, the Ketton stone being particularly popular from the sixteenth century onwards. The oolites are durable and produce stone in a range of warm but light colourings. Other significant stone deposits are the greensand stones (or carstone) of Norfolk and Cambridgeshire, which are of coarse grain and are rich brown in colour, ranging from 'gingerbread' in Norfolk to deep chocolate.

Flint, a material giving many buildings in southern England their distinctive appearance, is the most characteristic East Anglian building material. It is a very hard stone and occurs in the upper layers of chalk formations. In East Anglia it has been mined since Neolithic times around Grimes Graves in the Breckland area. Flints rounded by water motion are found at certain points on the coast and on the edges of some of the fens. Flint buildings dating from Norman, and, to a lesser extent, Saxon, times are especially interesting features of the region. Many churches were built in this material, and of the extant round flint towers in England the great majority are in Norfolk, where there are some 120 of them, and Suffolk, where there are about 40.

Among refinements in the art of building with flint is 'knapping' or the splitting of the stone in order to acquire a flat and glossy, almost polished, face. A further refinement was to square the flint completely. In Norfolk and Suffolk, knapped and squared flints were combined with other masonry to produce remarkable chequer decorations called flushwork.

Of other building materials, mention may be made of reeds, growing in beds round the fens and marshlands, that have proved admirable for thatching.

Anglo-Saxon architectural remains can still be seen in the Peterborough area in the churches at Great Paxton, Barnack and Wittering, but Cambridgeshire otherwise has few notable buildings dating from this period apart from St Bene't's in Cambridge. In Norfolk pre-Norman work can be seen in a number of places, notably at North Elmham. Both Norfolk and Suffolk have round flint towers in some of which Anglo-Saxon work mingle with Norman.

Norman architecture of the tenth to thirteenth centuries is far better represented in the region, mostly by religious buildings. The cathedrals at Ely (see photograph, centre pages), Peterborough and Norwich, abbeys at Ramsey and Thorney, the *hospitium* (later the parish church) at Ramsey, and monastic houses at Ely, Bury St Edmunds, Castle Acre, Thetford, Wyondham and Binham—the last four all in Norfolk—are among the most prominent examples, while numerous churches throughout the region retain Norman elements. Among the finest castle remains are those at Orford, Bungay and Framlingham in Suffolk and at Castle Rising in Norfolk.

The transition from Norman to Gothic styles¹ of architecture can be seen in many of the ecclesiastical buildings that have already been mentioned.

¹The main divisions of English Gothic architecture are 'Early English', covering roughly the thirteenth century; 'Decorated', c 1290–c 1350; and 'Perpendicular', c 1335–50 to c 1530.

Early English work is particularly noticeable in churches at Leighton Bromswold and Elton in Cambridgeshire, and in decorative features adopted in churches and other buildings throughout the region. Of particular note in the thirteenth century is Little Wenham Hall in Suffolk, a brick-built fortified manor house. The Decorated style of architecture is again largely visible as a transitional period of ecclesiastical architecture, with additions of window tracery, spires, piers and porches to many of the churches. The growing prosperity of the cloth trade in Norfolk and Suffolk and south Cambridgeshire in the fourteenth century led to the construction of 'wool' churches, the money being provided by successful merchants. Among these outstanding examples of Perpendicular architecture are the churches of Lavenham (see photograph, centre pages), Long Melford, Southwold and Blythburgh in Suffolk, St Peter Mancroft and St Andrew's Hall (both in Norwich), King's Lynn, Little Walsingham and Worstead in Norfolk and Great St Mary in Cambridge. Features of particular interest are the church towers and porches of this period, and the timber roofing frames, which abound in the region (especially Suffolk), are among the finest in the country. Many of these churches and some of the secular buildings in the Perpendicular style feature flint and freestone flushwork. Good examples are the chequerboard patterns of the fifteenth century Guildhalls of Norwich and King's Lynn.

Elizabethan and Jacobean buildings of note include some very impressive country houses. Burghley House, enlarged by Queen Elizabeth I's Lord High Treasurer and lying on the very edge of East Anglia near Stamford in Lincolnshire, is one of the grandest of Elizabethan constructions. Other houses of note in Cambridgeshire are Milton Hall, Elton Hall, Stibbington Hall, Sawston Hall and Madingley Hall. In Suffolk, Hengrave Hall, Melford Hall and Christchurch Mansion near Ipswich are leading examples, while for Norfolk, East Barsham Manor, Great Cressingham Manor, Hoveton Hall, Beeston Hall and Blickling Hall may be cited. Ecclesiastical building naturally declined after the Reformation in the first half of the sixteenth century, but among interesting seventeenth-century churches is the one at Little Gidding in Cambridgeshire, where in 1626 Nicholas Ferrar established a unique religious community.

Of later seventeenth- and eighteenth-century styles of architecture, the region has many impressive examples. The classical 'court' style of Inigo Jones and John Webb was introduced to the region by Peter Mills, who, with Wren and others, was one of the architects responsible for the rebuilding of London after the great fire of 1666. Mills built Thorpe Hall near Peterborough (1653-56) and possibly several other buildings in Cambridgeshire, including Thorney Abbey House. In Suffolk a notable example of the new 'metropolitan' style is the church at Euston. In Norfolk, Raynham Hall, with its setting of lake and park, is thought to have been built by Inigo Jones, though it was altered in the eighteenth century. Nearby is Melton Hall, built in the late Stuart period, with a similar setting.

Among the many eighteenth-century houses in the region, Holkham Hall (see photograph, centre pages), where Coke made his famous agricultural experiments (see p 7), Houghton Hall and Wolterton Park are good examples in Norfolk. Langley Park (now a school) is the work of a Norwich architect, Matthew Brettingham, who also built Benacre Hall in Suffolk.

Other grand houses in Suffolk are Heveningham Hall, Great Saxham Hall, which was built by Robert Adam, and Ickworth, constructed at the close of the eighteenth century. Harston House, Trumpington Hall and Wimpole Hall are significant houses in Cambridgeshire, but of chief interest in the county is Kimbolton Castle, remodelled by Sir John Vanbrugh, for which Robert Adam later provided a gatehouse.

From the late eighteenth century onwards until the middle of the present century there was a long period of relative depression in East Anglia, during which there was little building or architectural innovation of note. Mention should be made, however, of a number of churches in the Victorian Gothic style, including the great church of St John Baptist, Norwich, the largest Roman Catholic church in England, and another Catholic church at St Ives built by A. W. N. Pugin, the leading figure in the 'Gothic Revival'. Among country houses the royal country residence at Sandringham near King's Lynn was largely built in the nineteenth century, as was Wilburton Manor House in Cambridgeshire, another of Pugin's buildings.

More recently there have been some fine constructions in various parts of the region, particularly in Norwich, where the University of East Anglia with its *ziggurat* residences was begun in the 1960s, and in Cambridge. The latter city has not been mentioned hitherto since it merits separate treatment.

Cambridge

Norman and pre-Norman remains are not extensive in Cambridge. The origins of the university in the thirteenth century are not clear, but scholastic fraternities, which first arose in Italy and France, spread to Oxford and Cambridge in the eleventh and twelfth centuries. Studies were first conducted in private houses and it was not until the middle of the fourteenth century that university buildings (as distinct from colleges) were constructed at Cambridge. The first teaching schools, built between c 1350 and 1475 formed the quadrangle known today as Old Schools. These have been much modified, however, particularly during the eighteenth century. The first of the colleges, Peterhouse, was founded in 1280; its hall, erected in 1286, was the first college building proper, but few of the original features now remain. Far better preserved is the Old Court of Corpus Christi College, the last of seven colleges founded between 1324 and 1352. The towering gatehouses of many of the fourteenth-, fifteenth- and early sixteenth-century colleges are notable examples of English pre-Reformation styles. The chapel of King's College, begun in 1446, but not finally completed until 1515, is much more important and has been described as 'one of the major monuments of English medieval architecture'.¹ The soaring fan-vaulting and other decorative effects, added between 1508 and 1515, are magnificent. All the colleges of the pre-Reformation period retain some architectural feature typical of the time. Even after the Reformation Gothic styles were perpetuated in college building, notably in the libraries of Trinity Hall, built c 1570, and St John's College, built in 1623–24, and in Trinity College Hall, built in 1604–05. Traditional features were also maintained in the mid-seventeenth-century phase of building when the new influences of the London architects (such as

¹The Buildings of England: Cambridgeshire, by Nikolaus Pevsner, Penguin Books, 1970, p 102.

Indigo Jones and Wren) were felt. Of this newer style the Fellow's Building at Christ's College, begun in 1640, and the west front of Clare College, begun in 1669, are among the leading examples. Wren himself built the chapels for Pembroke College in 1663 and Emmanuel College in 1666 and the library of Trinity College, on which work commenced in 1676. The latter is in the first rank of this great architect's work and contains carvings by the famous craftsman, Grinling Gibbons.

The succeeding style of architecture, incorporating Italian and classical 'Palladian' motifs, is well represented by the work of James Gibbs, who built the elegant Senate House between 1722 and 1730 and the Fellow's Building at King's College, begun in 1723. Other 'Palladian' buildings are the Fellow's Building at Peterhouse and the rebuilt east range of the Old Schools. Rebuilding rather than building was in fact characteristic of the eighteenth century at Cambridge and some of the medieval features were obscured. The nineteenth and twentieth centuries have seen numerous new buildings constructed, some of them for colleges, but more for the university itself. Downing College with its purely classical design was begun in 1807. Among many additions in the revived Gothic style is the New Court of St John's College with its famous 'Bridge of Sighs' across the river (see photograph, centre pages). Other impressive classical buildings are the University Library, and the Fitzwilliam Museum, both begun in 1837. Victorian edifices of note include Newnham College (begun in 1875), Pembroke College New Building (begun in 1878) and Westminster College (begun in 1899). Some notable decorative work in stained glass and other media was done during the 1860s and 1870s by the designer and writer, William Morris.

In the twentieth century a great variety of buildings large and small and in a mixture of styles have been added. The 1960s saw a particularly energetic period of building.

Holiday Amenities

Almost 80 per cent of holidays taken in the region are spent by the sea, and the coastal areas, together with the Broadlands, contain almost 90 per cent of all accommodation. The region's accommodation is not evenly distributed, however, with Norfolk accounting for roughly 80 per cent of the total, concentrated in three main areas. Great Yarmouth and the Broadlands have a combined accommodation capacity of almost 100,000 people. The Cromer and Wells area on the north coast can accommodate over 40,000 people, while further west the Hunstanton area can provide for some 23,000 people. The largest single resort is Great Yarmouth with its concentration of hotels, caravan and camping sites, and amusement facilities of all kinds. Cromer (see photograph, centre pages), Hunstanton and Sheringham are the other largest resorts.

In Suffolk the main holiday centres, Lowestoft and Kessingland, lie south of Great Yarmouth; smaller amounts of accommodation are provided by Southwold, Aldeburgh and Felixstowe.

Norwich and Cambridge together can take 3,000 overnight visitors at any one time.

The major Broads centres are extremely busy and accommodate over a quarter of a million visitors during the six months' long season. Hotels and

caravan and camping sites are, however, used intensively only at the peak of the holiday season in July and August.

The total number of holidays taken in the region has been increasing steadily, many of these being the second annual holiday that the visitors are taking. East Anglia provides a smaller share of its accommodation in the form of hotels than the rest of the country, possessing a much higher percentage of self-catering accommodation, in the form of self-service holiday camps, rented accommodation, tents, caravans, cottages and so forth. Since the general tendency of holidaymakers in recent years has been to choose self-catering accommodation it is likely that the trend in the region towards providing this kind of accommodation will be reinforced. Indeed there has been a decline in the number of hotels and boarding houses in the older, more traditional resorts.

Sport

Several professional association football teams are based in the region: Ipswich Town, Norwich City, Cambridge United and Peterborough United. Rugby Union, cricket, hockey and other games have their support in the region, and at Cambridge University athletics and boat-racing are among the most keenly followed sports.

Newmarket has been the centre of British horse-racing for 300 years and the historic headquarters of the Jockey Club are located here. Horses are exercised every day on Newmarket Heath, and two classic races are held at Newmarket: the Two Thousand Guineas for colts and fillies, and the One Thousand Guineas for fillies only. The town is not only a racing centre but a breeding centre, too, being the home of the National Stud and a number of privately owned studs. The famous Tattersalls bloodstock sales are held in the autumn and early winter. Horse-racing also takes place at Huntingdon, Great Yarmouth and Fakenham.

There are excellent facilities for both sea and freshwater fishing in the region. Sheringham, Cromer, Great Yarmouth, Gorleston, Lowestoft, Southwold and Felixstowe all have information centres giving advice on sea fishing. Anglers on inland waters may apply to the Fisheries Officers of three river divisions of the Anglian Water Authority—the Norfolk and Suffolk Division, the Great Ouse River Division and the Welland and Nene River Division—for information on when and where to fish. The rivers Yare, Bure and Waveney, their tributaries and the Broads offer some of the finest coarse fishing in the country. In some places a permit is needed as well as a licence.

The region has facilities for a variety of other sporting activities, including sailing, horse-riding, walking, golfing, tennis-playing, bowling and even ballooning. Motor races are held on the circuit at Snetterton in Norfolk. The Thames barge match, at Pin Mill on the River Orwell near Ipswich, provides a rare opportunity for the skippers of these unique flat-bottomed craft to display their skills.

Cultural Amenities

Most branches of the arts are represented in East Anglia and are promoted and supported by local arts councils and societies. The Eastern Arts Associa-

tion, based in Cambridge, was set up in 1971 and is an independent body co-ordinating work between the Arts Council of Great Britain, local authorities, local organisations and individual persons with interests in the arts. Financed mainly by the Arts Council and local authorities, the Eastern Arts Association covers Bedfordshire, Essex and Hertfordshire in addition to Cambridgeshire, Norfolk and Suffolk.

There is a great deal of musical activity in the region with concerts and other musical entertainments provided in all the larger centres, especially during the summer months. The major event is the world-famous Aldeburgh Festival of Music and Arts, founded in 1948 by the composer, Benjamin Britten, and the singer, Peter Pears, which attracts artists of the highest international reputation (see photograph, centre pages). It is held annually in mid-June in association with the Arts Council and the English Opera Group. Cambridge attracts some of the world's finest instrumentalists and soloists for its concerts and is well known for the choral concerts held in the fine university chapels. The choirs of King's College and St John's College are particularly famous. Cambridge is also the home of an annual festival of folk music, which attracts performers and audiences from all over the country.

Theatre centres are found in the larger cities and towns, some of them offering diverse entertainments, ranging from plays, pantomimes, musicals and ballet, to circuses and wrestling. There are repertory drama companies in Cambridge, Peterborough, Norwich, Sheringham (during the summer) and Ipswich. National touring companies also visit some centres in the region and the Theatre Royal in Norwich is one of Britain's 12 theatres in the Arts Council's national touring grid. During the holiday season many of the seaside resorts offer revues and other shows. Amateur theatrical productions are numerous, particularly at Cambridge where it features among university activities.

Among collections of pictures in the region, the most prominent are those in Cambridge, Norwich, Euston near Thetford, Ickworth, Ipswich and Sudbury. In Cambridge the Fitzwilliam Museum has works by Titian, Rubens, Rembrandt, Reynolds and Gainsborough among others. The Castle Museum in Norwich houses a collection of pictures, laying particular emphasis on the Norwich school of artists, the only provincial English painting school, whose leading members were John Crome and John Sell Cotman. Euston Hall in Suffolk contains paintings by Stubbs, Van Dyck, Kneller and Lely, while Ickworth has portraits by Reynolds, Gainsborough and Kauffman. At Ipswich, Christchurch Mansion, a Tudor town house, holds paintings including work by Gainsborough and Constable who were both born in the region. The latter is particularly associated with the Stour valley, depicted in many of his famous landscapes. More paintings by Gainsborough are exhibited at his birth-place in Sudbury. Other collections are in galleries and museums in Great Yarmouth, King's Lynn, Thetford, Bury St Edmunds, Cambridge and Peterborough.

In addition to its paintings, mentioned above, the Fitzwilliam Museum in Cambridge has an outstanding collection of antiquities (the Egyptological section is of great interest), ceramics, tapestries and other applied arts, and medieval and music manuscripts. Other Cambridge museums are the

University Museums of Archaeology and Ethnology, of Classical Archaeology and of Zoology. Local history, archaeology and natural history museums are to be found in all of the large and many of the smaller towns throughout the region. Of particular historical interest is Strangers Hall in Norwich, which shows costumes and interior decor and furniture of the sixteenth to nineteenth centuries. Museums exhibiting relics of the region's rural past include the Bridewell Museum in Norwich, the Cambridge and County Folk Museum and the Abbot's Hall Museum of East Anglian life near Stowmarket in Suffolk. Among museums presenting mechanical artefacts of the past are the Bressingham Live Steam Museum near Diss in Norfolk, the Gershom Parkington Collection of Clocks and Watches at Bury St Edmunds, the East Anglia Transport Museum at Coulton Colville near Lowestoft and the museum at Stretham in the fens which is built above an old steam pumping engine used for draining the fens and still in working order.

Easily the most comprehensive of the libraries is Cambridge University Library, which, like the British Library and three others in Britain, is a copyright library entitled to claim a copy of each new book published in the country.

There are four main newspaper publishing groups in the region. In addition to the daily newspapers listed here, each group also publishes weekly newspapers for various localities. The Eastern Counties Newspapers Group produces two dailies from its headquarters in Norwich: the *Eastern Daily Press*, with a circulation of 86,000, and the *Eastern Evening News*, with a circulation of about 66,000. The East Anglian Daily Times Group, based in Ipswich, is part of the Eastern Counties Newspapers Group and produces the *East Anglian Daily Times*, with a circulation of 40,000, and *The Evening Star*, with a circulation of 45,000. Cambridge Newspapers Ltd publishes the *Cambridge Evening News*, with a circulation of about 52,000, while from its headquarters in Peterborough the East Midland Allied Press Group publishes the *Peterborough Evening Telegraph* and the twice-weekly *Peterborough and City Advertiser*, both with circulations of about 30,000. The Cambridgeshire Times Group, also based in Peterborough, produces only local weekly newspapers, the largest of which is the *Peterborough Standard*, with a circulation of some 77,000 copies.

The BBC has a regional television station in Norwich producing short regional programmes, while the headquarters of a commercial television company, Anglia Television, are also located there. The coastal areas of north-west Norfolk receive transmissions from the Yorkshire Television commercial company rather than from Anglia Television. The BBC radio station in Norwich produces localised radio programmes. A commercial local radio station at Ipswich, broadcasting on both medium and VHF wavebands, went into operation in October 1975.

There are a number of places in the region which attract visitors by reason of their connection with famous figures who have become part of the national literary or historical heritage. The poet George Crabbe (1754–1832), who is associated with Aldeburgh, wrote realistically of the lives of the poor of his day and about the natural beauty of Suffolk. His poem *The Borough* inspired Benjamin Britten's opera, *Peter Grimes*. Another poet, John Clare

(1793–1864), was an agricultural labourer and wrote of rural life around his birthplace in Helpston near Peterborough. Blundeston in Suffolk is the memorable setting of the early chapters of Charles Dickens's *David Copperfield*. Other literary associations are with John Skelton (c 1460–1529), poet and rector of Diss in Norfolk; George Herbert (1593–1633), the poet, who was prebend of Leighton Bromswold near Huntingdon from 1626 to 1630; the diarist Samuel Pepys (1632–1704) whose house at Brampton near Huntingdon still stands; the writer George Borrow (1803–81) born in Norwich; and the translator of the *Rubaiyat* of Omar Khayyam, Edward FitzGerald (1809–83), who lived nearly all his life near Woodbridge in Suffolk. Famous historical personages include two of the six wives of Henry VIII, Anne Boleyn and Catherine Howard, both born in Norfolk; his daughter Mary Tudor, who is buried at Bury St Edmunds; Oliver Cromwell, born in Huntingdon; and Admiral Lord Nelson, born in Burnham Thorpe in north-west Norfolk. Relics of the Lincoln family, from whom the American president was descended, are to be found in Hingham near East Dereham and in Wymondham in Norfolk.

READING LIST

		£
PEVSNER, NIKOLAUS.	Bedfordshire and the County of Huntingdon and Peterborough.	<i>Penguin</i>
—	Cambridgeshire. Second edition. ISBN 0 14 071010 8.	1968 1.75
—	North-East Norfolk and Norwich. ISBN 0 14 071023 X.	1970 2.50
—	North-West and South Norfolk. ISBN 0 14 071024 8.	1970 2.75
—	Suffolk. Second edition revised by Enid Radcliffe. ISBN 0 14 071020 5.	<i>Penguin</i> 1974 5.75
Strategic Choice for East Anglia.	Report of the East Anglia Regional Strategy Team. ISBN 0 11 750726 1.	<i>HMSO</i> 1974 5.50
East Anglia Regional Strategy:	Government Response to 'Strategic Choice for East Anglia'.	
	<i>Department of the Environment</i>	1976 free
East Anglia: A Study.	East Anglia Economic Planning Council.	<i>HMSO</i> 1968 2.00
East Anglia: Visitors Guide 1975.	East Anglia Tourist Board	1975 0.30
Regional Economic Review.	Biannual.	
	<i>East Anglia Economic Planning Council</i>	
Regional Statistics.	Central Statistical Office. Annual.	<i>HMSO</i>
Official Guides to counties, cities and major towns in the region.		

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